School of Theology at Claremont
1001 1343835

James C Baker

Korea

THE METHODIST CHURCH ★ JAMES C. BAKER ★
1739 1784
LOVE OBEY BELIEVE

THE LIBRARY
OF
JAMES CHAMBERLAIN BAKER

LIBRARY
SOUTHERN CALIFORNIA SCHOOL
OF THEOLOGY
CLAREMONT, CALIF.

Theology Library

SCHOOL OF THEOLOGY
AT CLAREMONT
California

CULTURAL EVOLUTION

M
106
E5

The Century Social Science Series

CULTURAL EVOLUTION

A STUDY OF SOCIAL ORIGINS
AND DEVELOPMENT

BY

CHARLES A. ELLWOOD

PROFESSOR OF SOCIOLOGY IN THE UNIVERSITY OF MISSOURI
AUTHOR OF "THE PSYCHOLOGY OF HUMAN SOCIETY"
"THE RECONSTRUCTION OF RELIGION," ETC.

THE CENTURY CO.
NEW YORK LONDON

Copyright, 1927, by
THE CENTURY CO.

2107

Printed in U. S. A.

TO THOSE OF MY STUDENTS WHO
HAVE DEVOTED THEMSELVES
TO THE TEACHING OF THE
SOCIAL SCIENCES

INTRODUCTORY NOTE

Those who have no patience with hypothesis in scientific work are warned against reading this book. It is merely an outline of the author's theory of human social evolution. Probably the more cautious anthropologists and sociologists will say that many of its generalizations are premature. But in the belief that even faulty generalizations are better for the development of the social sciences than no generalizations, it is offered to the public.[1]

It should not be inferred by the reader, however, that the generalizations offered have not been reached by a long and laborious process of induction. For more than twenty years the author has given at the University of Missouri a course in "Cultural Anthropology." About ten years ago the material in his lectures began to take the form presented in the generalizations of this book. If all the supporting evidence of anthropological and historical facts which have been gathered by him were published with these generalizations, the work would make several volumes; and those who know the limited time available for writing and research to a teacher in a state university, with large undergraduate classes, know how impossible such an undertaking is in such circumstances. Possibly an outline of theory as it has developed in the teacher's mind will be welcomed by the reading public, however; and if the main outlines of the theory stand the test of scholarly criticism, that is as much as the author expects.[2]

---

[1] At least one leading American anthropologist has publicly expressed himself in favor of bolder generalizations: "For some time to come," says Dr. Alexander Goldenweiser, "American contributions to ethnology may fall below their accustomed standards of meticulous care and logical finality. But the loss will be a gain if they reveal a proportionate rise in creative ideas and illuminating syntheses" (in *The History and Prospects of the Social Sciences,* edited by H. E. Barnes, p. 254).

Some may find the book, even though it is interpretative rather than factual, useful as an outline text for university courses in human social origins and social evolution. However, it is frankly written in the hope that it may also interest the educated public; for nothing is more important in the present age than that we should come to understand where we are in the development of civilization. An uncritical overvaluation of the past threatens us with stagnation in our spiritual culture. On the other hand, failure to appreciate past cultural achievements may lead us to sacrifice cultural values of permanent worth. Moreover, failure to understand the nature of culture and its possibilities in controlling the social behavior of man may lead to a wrong emphasis upon certain factors in social evolution, especially the non-human and material factors. The book accordingly attempts frankly an evaluation of the traditions of our civilization and of the various factors in social and cultural evolution. Students of the author's other books, especially of *The Psychology of Human Society* and of *The Reconstruction of Religion,* will find in this book the theory of social and cultural evolution which forms the background of the views presented in those works.

To paraphrase a famous saying, the true method of humanity's development has waited for millenniums for someone to perceive it; it may well wait yet a century or so till all the scientific evidence has been gathered to demonstrate it beyond cavil.

CHARLES A. ELLWOOD.

---

[2] It is scarcely necessary to point out that the great need in the social sciences of the present time is not more factual research, but the correlation and interpretation of data already gathered. The literature of anthropology and sociology now contains an abundance of material for the testing of social theories if it is properly used.

CONTENTS

CHAPTER PAGE

I Social Evolution and Cultural Evolution . 3

II Stages in Cultural Development 18

III The Nature and Method of Cultural Evolution 44

IV Theories of the Causes of Cultural Evolution 59

V Primitive Concepts and the Origin of Cultural Patterns 82

VI The Evolution of Physical Tools 98

VII The Development of the Food Process and Its Pathologies 109

VIII The Development of Agriculture 121

IX The Development of War 133

X The Development of Clothing and Bodily Decoration 145

XI The Development of Housing 158

XII The Development of the Fine Arts 165

XIII The Development of Property 183

XIV The Development of the Family 192

XV The Development of Law and Government . 206

XVI The Development of Morality 216

XVII The Development of Religion 225

XVIII The Development of Education and Science . 237

XIX Cultural Retrospect and Prospect 251

Index 263

FIGURES

FIGURE PAGE

1 RISE OF HUNTING CULTURES ABOUT 100,000 B.C. . . 32

2 A CHRONOLOGICAL CHART OF CULTURAL STAGES . . . 34

3 THE CURVE OF HUMAN CULTURE 42

4 THE CURVE OF THE DEVELOPMENT OF STONE TOOLS . . 52

5 THE DEVELOPMENT OF PHYSICAL TOOLS 106

6 THE CURVE OF MATERIAL CIVILIZATION 107

7 THE CURVE OF MILITARY ACTIVITIES 142

8 THE CURVE OF BODILY MUTILATION 155

9 THE CURVE OF THE DEVELOPMENT OF PROPERTY . . . 190

10 THE CURVE OF THE DEVELOPMENT OF THE FAMILY . . 204

11 THE CURVE OF THE DEVELOPMENT OF GOVERNMENT . . 213

12 THE CURVE OF THE DEVELOPMENT OF MORALITY . . . 224

13 THE CURVE OF THE DEVELOPMENT OF RELIGION . . . 235

14 THE CURVE OF THE DEVELOPMENT OF EDUCATION . . 243

15 THE CURVE OF THE DEVELOPMENT OF SCIENCE . . . 249

16 THE TREND OF CULTURAL TRADITIONS 254

17 THE STREAM OF CIVILIZATION 261

CULTURAL EVOLUTION

A STUDY OF SOCIAL ORIGINS AND DEVELOPMENT

CULTURAL EVOLUTION

CHAPTER I

SOCIAL EVOLUTION AND CULTURAL EVOLUTION

CHAP. I

Significance of Cultural Evolution for Social Evolution

IF we are to understand the nature and probable development of human social life, its origin, direction, and destiny as human, we need to understand the differential factor of "culture" and the development of culture which controls its destiny. It is the failure to recognize the importance of culture in human social life and of cultural evolution as a distinct phase of social evolution which has often led to the neglect of the distinctively human factors in human society and to attempts to interpret the group behavior of human beings practically in the same terms as might be used in interpreting the group behavior of the animals below man. It is also the failure to discriminate between social and cultural evolution which has led to the debate whether there are animal "societies" or not. Much confusion in the social sciences springs from the confusion of social evolution with cultural evolution on the one hand, and with organic evolution on the other.[1]

The nature of human society and the probable development of human social life can be understood only by understanding the differential factor which distinguishes all human groups from all animal groups. This differential factor is culture. Concretely, it is tool making and institution making.[2] In its broadest sense culture consists of "behavior patterns socially acquired and socially transmitted." [3] There is nothing in the rest of nature to compare with this social diffusion of behavior patterns in human groups; for we must be careful to exclude from culture those cases of natural reaction socially or sympathetically excited, such as when the fright of one animal gives rise to fright in another. We have culture only when individuals *learn to modify* their conduct through what is communicated to them by other individuals. Culture, therefore, depends upon the interchange of experience, and so upon language in some form, though verbal language is itself the primary form of culture. Cultural evolution is the evolution of what is ordinarily called "civilization," that is to say, of the knowledge, skills, and standards which are utilized in the making of tools, institutions, and social customs.[4]

---

[1] Thus Ward, *Pure Sociology*, Chap. III, fails to discriminate between cultural evolution and social evolution. This is also apparently true of Keller, *Societal Evolution*, Chap. I, and of Kroeber in his article on "The Superorganic" in the *American Anthropologist*, April-June, 1917. The word *evolution* is used in this book in its broad scientific sense, meaning "orderly change," or "orderly development."

Culture the Distinguishing Mark of Human Society

While all human groups possess culture, no animal group possesses culture.[5] In the animal world, if any individual does acquire special skill or superior control over his environment, he does not possess the ability to communicate these attainments to any appreciable extent to his fellows, because he lacks language. Hence it is only the behavior of the individual which is affected. But in the human world mental interaction or communication has developed into verbal language, so that one individual has the power to communicate his concepts to the fellow members of his group. Thus the behavior of the whole group is affected; and thus it results that collective *human* behavior is dependent primarily upon language.[6]

---

[2] Tylor's famous definition of culture in his *Primitive Culture* is "Culture . . . is that complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society."

[3] Prof. C. M. Case has properly criticized this definition of culture, since not *all* socially transmitted behavior patterns are a part of culture, which consists essentially in the external storage, interchange, and transmission of personal and social experience by means of tools and symbols—a process entirely unknown on any level of life below the human.

[4] Judd in his *Psychology of Social Institutions* (1926) tries to make the term *institutions* cover the same content which anthropologists have covered by the word *culture*. For example, Judd says, "the word institution covers the fact that by combined effort men have produced tools" (p. 3). This use of the term *institution* is unfortunate, as in the social sciences generally it has long had a much narrower and a very definite connotation. See Hobhouse, *Social Development*, pp. 48-50.

[5] The attempts to prove that some animal groups possess the rudiments of culture must be considered thus far to have failed. The most notorious of these attempts is the one to prove that the anthropoid apes have the rudi-

While the ability to form concepts and to communicate these to others through the mechanism of language is the basis of cultural evolution, the essence of culture is invention or achievement.[7] But invention, whether physical or social, is impossible, barring accidents, without the formation of a pattern or concept in the mind. An invention which is not a mere accident must be imagined in thought before it is executed. Man makes over his world in imagination before he undertakes deliberately to make it over in reality. An invention, therefore, is fundamentally a mental pattern formed in the mind of some individual before it becomes a physical tool or a social relationship. But such a mental pattern must be diffused by communication before it becomes a part of the

---

ments of verbal language. The reader will find a full report of the investigations and experiments upon this problem in Professor Yerkes' two books, *Chimpanzee Intelligence and Its Vocal Expressions* and *Almost Human.* The net result of Yerkes' experiments seems to prove that the apes possess only emotional cries, and not true verbal language, which expresses concepts or ideas. It should be noted, however, that the argument of this book is not dependent upon any solution of this problem.

[6] This is not to deny that many patterns of behavior in human society are communicated visually. This is especially true of adjustments to material objects. Nevertheless, "doing what we see others do," or imitative action, though it is common among the brutes, does not produce culture. Language of some sort is necessary for the communication of concepts, and concepts and their diffusion make culture. See Pages 12, 13 of this chapter.

[7] "Culture is a vast social complex of human inventions." Wissler in *Recent Developments in the Social Sciences,* p. 87.

culture or achievement of a group. All culture is therefore *learned*. The new adjustment or invention is learned by the experimentation of one or more inventive individuals in the group. Then it is learned by the group through some means of intercommunication, usually by verbal language, and in this way it becomes a part of the culture of the group.

Culture a Process of Learning by Groups

Let us illustrate by the case of a simple stone tool. Somewhere in the distant past, in some primitive human group, an individual learned, by accident [8] or intelligent planning, to make such a stone tool. If he was intelligent enough to understand the method by which the tool was made, and possessed some form of language, he was able to communicate the method of making the tool to other individuals of his group. Soon all the group were making and using similar stone tools. Individuals of superior ability then improved the pattern of the tools which were being made, and communicated their methods to other individuals, and thus tools of superior pattern were diffused throughout the group. This process was continued through the ages, leading to the accumulation of knowledge of methods and the gradual development of stone tools, then to simple metal tools, and finally to the most complex of modern machines.

Thus we see that culture, whether it is tool making, ritual making, institution making, or idea making, is all a process of learning and of communication. It is built up, to be sure, upon the natural endowments of man. Its foundations are laid in the life of the animals below man; but individual and social evolution has not gone far enough among the brutes actually to produce culture. The wonders of a hive of bees, a hill of ants, or a colony of beavers are truly "social", that is, they are produced by group life and involve "comradeship," or conscious inter-stimulation and response, but they are not "cultural." [9] The organization achieved by such animal communities is not, so far as we know, on a cultural plane, but has been produced wholly by the action of purely organic factors, such as variation, heredity, and selection, with perhaps the addition of some slight amount of habituation. Thus social evolution in its beginning, that is, in animal groups, is dominated by the factors of organic evolution, and no new principle or direction is produced which results in a more or less independent evolutional series. Everything in animal group life remains quite rigidly determined by the organic necessities of nutrition, reproduction, and defense. The food process, the reproductive process, and defense against enemies are practically the only factors which need to be taken into consideration to understand the group life of the animals below man. Biological-geographical determinism will easily cover all of the facts of their social life.

---

[8] For the large part which accident plays in the making of inventions and the development of culture see Chapter IV and later chapters dealing with the development of particular phases of culture. Accident undoubtedly is a very important factor in the development of culture, but it is important only because culture is developed by a learning process—only because men *learn* from accidents.

Animal Groups Social Only in the Biological Sense

As Professor Tozzer says, "The ants are social only in the biological sense. Their activities are indeed marvelous, their industry stupendous, but each movement is predestined by their organic constitution. They learn nothing new. . . No influence of a non-organic nature is ever felt. Human society is of an entirely different order. Take a couple of ant eggs of the right sex—unhatched eggs, freshly laid. Blot out every individual and every other egg of the species. Give the pair a little attention as regards warmth, moisture, protection, and food. The whole of ant 'society,' every one of the abilities, powers, acomplishments, and activities of the species, each

---

[9] For a critical discussion of the scientific use of the term *social,* for which some sociologists would substitute the technical term *societal,* see the author's *Psychology of Human Society,* pp. 4-12.

'thought' that it has ever had, will be reproduced, and reproduced without diminution, in one generation."[10]

Culture a Mutation in Evolution

Professor Tozzer rightly concludes: "The social insects are a purely biological group, and nothing more; man is a biological group and something so much more that the purely physical is of comparatively little importance in his cultural life."[11] In other words, man has developed a new type of social life, a type which is dominated by acquired habits, acquired intelligence, and acquired values; a type, in other words, which is dominated by culture. A mutation has taken place in social evolution, and human social evolution begins to be an evolution of culture. This has been admirably expressed by Professor Kroeber when he says: "One might compare the inception of civilization to the end of the process of slowly heating water. The expansion of the liquid goes on a long time. Its alteration can be observed by the thermometer as well as in bulk, in its solvent power, as well as in its internal agitation. But it remains water. Finally, however, the boiling point is attained. Steam is produced; the rate of enlargement of volume is increased a thousand fold; and in place of a glistening, percolating fluid, a volatile gas diffuses invisibly. Neither the laws of physics nor those of chemistry are violated; nature is not set aside; but yet a saltation has taken place."[12]

But a Product of Social Evolution

Thus cultural evolution is a product of social evolution and is a distinct phase of universal evolution.[13] Variation, heredity, and selection furnish only its beginnings and foundations. Culture is transmitted socially, that is, by communication, and gradually embodied in a group tradition of which the vehicle is language. Thus culture in a group is a matter of accumulation, while culture for the individual is a matter of habits of thought and action acquired or "learned" by interaction with other members of his group. Culture includes all of man's acquired power of control over nature and himself. It includes, therefore, on the one hand, the whole of man's material civilization, tools, weapons, clothing, shelter, machines, and even systems of industry; and, on the other hand, all of non-material or spiritual civilization, such as language, literature, art, religion, ritual, morality, law, and government. The very mention of these indicates that man as a social creature is largely a cultural product. We must understand culture, therefore, if we are to understand the direction and goal of social evolution; for it is culture which has made and will make our human world.

---

[10] Tozzer, *Social Origins and Social Continuities*, p. 13.

[11] *Ibid.*, p. 14.

[12] *American Anthropologist* (N.S.), Vol. XIX, p. 20.

[13] Of the preparation in organic evolution for the coming of cultural evolution, Herrick strikingly remarks: "Somewhere in the history of primate evolution, during the course of progressive elaboration of the apparatus of cortical associations, sufficient complexity of tissue and plasticity of organization was attained to facilitate rapid learning, the retention of memories of single experiences and the abstraction from these of certain features common to all of them, and finally the integration of these common features into symbolic patterns. Symbolic thinking is a new kind of function, though the steps by which it was fashioned can probably be traced. . .

Non-cultural Elements in Human Behavior

Yet it would be a mistake to think that there was nothing about the social evolution of man which was not cultural and to confound the social and the cultural, as have some writers. On the contrary, human groups are not only the carriers of culture, but also the medium in which culture develops and has its being. Accordingly, there are certain conditions of human groups and certain laws of human behavior within

"The revolutionary nature of the change in behavior patterns colligated with the appearance of symbolic thinking can hardly be exaggerated. Once the change has been consummated, habitude as the dominant behavior pattern gives way to insight in terms of generalization of experience, foresight of possible future consequences of action, the fabrication of consciously directed purposes, deliberative choice in view of these purposes, and finally the development of ideals of character and the shaping of daily conduct with a view to molding the personality in conformity with these ideals.

"We have not the slightest evidence that these powers are possessed in any degree by any of the lowest mammals, though we can see, very dimly, their sources and can trace some of the stages in their elaboration." (*Brains of Rats and Men*, pp. 350, 351.)

which the cultural process goes on. These conditions and laws are universal, and hence are not created by culture but are the basis of culture. Such, for example, is the fact of "intercommunication" in human groups. Intercommunication is the vehicle of culture, but, as it exists below the human level, it is manifestly not a part of culture but a social fact which underlies culture, although in human groups intercommunication has taken the form of language, which is a cultural product. Again, the division of labor, which is so important in all human groups, is also present in animal communities and cannot be considered a product of culture, although it is a social principle which is indefinitely modified by culture. Again, human creativeness is not a product of culture, even though it is stimulated and directed by it.[14] Finally, there are many things about human groups and a man's behavior in groups which must be considered non-cultural because they are evidently an inheritance from man's pre-human ancestry. Many of the facts, for example, connected with birth, death, the growth of population, race, food, geographic environment, and natural selection in human society are important social facts,[15] but they are non-cultural. Cultural facts, of course, may modify all of these, but in and of themselves, stripped of their cultural modifications, they are not cultural facts. They are rather conditions which modify, and in turn are modified by culture. For example, courtship, mating, and family life are not in themselves cultural facts, since they are found in many of the animals below man. They are always social facts, however, and in all human groups they have become profoundly modified by cultural conditions; and they in turn form one of the chief foundations for cultural development.

---

[14] For expansion, see Dr. A. A. Goldenweiser's paper on "Psychology and Culture" in *Publications of the American Sociological Society,* Vol. XIX (1925), pp. 15-23. Among anthropologists Goldenweiser has especially emphasized the importance of the individual as a factor in culture. See also his statement in the *American Anthropologist,* Vol. XIX, p. 447: "The civilization stream is not merely carried, but is also unrelentingly fed by its component individuals."

[15] It is hardly necessary to point out that it is these non-cultural social facts which form the "stock in trade" of many economists and other social scientists who wish to assimilate the social sciences to the "natural" sciences. But such non-cultural facts do not include the distinctively human, and so are an inadequate basis for the sciences of *human* society.

Social evolution is thus a larger process than cultural evolution. It is a process which began long before man appeared on the earth, whereas cultural evolution is coeval with human life. Cultural evolution is a smaller process, taking place within, and arising out of social evolution, much as social evolution takes place within and arises out of organic evolution.[16] Just as psychic inter-stimulation and response, when it was made possible by organic evolution, proved to be a basis upon which a new evolutional series—a series of groups of individuals carrying on a common life by means of inter-stimulation and response—was developed, so, too, some new development in social evolution must have proved the basis for another new evolutional series, the series of "acquired activity complexes," handed down by tradition from generation to generation in human groups, which make up the content of culture or civilization. Moreover, just as organic evolution conditions social evolution at every step, so social evolution conditions cultural evolution.

The Cultural Element in Social Behavior

To admit a non-cultural element in social evolution is not to deny that culture determines the form of human relations and human group behavior. For example, family life may be found among the brutes far below man; but family life in all human groups of which we have knowledge has been not only modified by culture but dominated by culture. Courtship may be a universal social phenomenon in all higher animal species; but courtship in all human groups is controlled by the culture of the group. Crowd behavior is common to man and many of the higher animals; but the peculiar direction and characteristics of human mobs are the result of the culture of human groups. Hence man's social life has throughout become predominantly a cultural life, and the understanding of cultural evolution is accordingly the main key to understanding man's present social condition and his possible future social evolution.[17]

---

[16] See the author's *Psychology of Human Society*, pp. 40-44, for elaboration and a schematic representation of the relations of the various stages of universal evolution.

Language the First Element in Culture

It is commonly supposed that tool[18] making forms the beginning and, so to speak, the "backbone" of cultural evolution; that through the invention of physical tools human industry arose, and that upon industry as the basis the whole fabric of civilization has been reared; but even from the few facts which we have mentioned we can see the truth of Wissler's statement: "It is a core of ideas and beliefs, actuating a people and in a large measure controlling their career, that forms the backbone, or at least the unifying element, in their culture-complex." [19] In other words, it is the diffusion of mental patterns by language through the group, thereby making them *social* patterns, which forms culture.[20] This was the new development in social evolution which made possible cultural evolution.

Thus verbal language, we have every reason to believe, is the first element in culture, and becomes the main vehicle of the cultural process.[21] Culture has to do with mental patterns and with their diffusion. The process of invention in the individual mind lies at the basis of culture production,[22] but we must understand *invention* here in the broad sense of the production of new patterns of behavior. If invention is taken in this broad sense we see that invention lies back of all culture production. Even language itself is an invention in the sense of the production of a pattern of behavior which symbolizes and communicates concepts or ideas. Improvements in that series of vocal gestures which we call language have been through a series of inventions which have taken place throughout human history. Coeval with the invention of language must have been the transmission through language of knowledge and skill; and thus in a very broad sense science and art lie also at the basis of human culture. Human groups, as soon as they could communicate by means of language, would, as Aristotle suggested, approve of some and disapprove of other habits on the part of the members of the group. Thus customary morality would have its beginning as a part of culture. Again, as soon as human groups attained to certain values regarding their folk ways and to certain concepts of superhuman powers which might give a supernatural sanction to their customs, we would have the birth of religion as a part of culture. Finally, reflection upon group organization and control led to organized government. In the meantime, invention had busied itself with the production of physical tools designed to furnish some measure of control over physical nature.

---

[17] This is, of course, the position which is known in history and philosophy as "historical relativism."

[18] In anthropological language a *tool* is any physical device which extends or increases the power of the body, such as implements, weapons, machines. Metaphorically the term is sometimes extended to include devices to assist mental processes.

[19] *Man and Culture,* p. 3.

[20] Culture is in essence, therefore, concept making and concept using, word making and word using, even more than it is tool making and tool using. Physical tools are the counterparts of concepts in the material and mechanical domain. (Compare McCormack's article, "In the Beginning Was The Word," in *School and Home Education* for September, 1918.)

---

[21] Verbal language, says McCormack (*loc. cit.*) "in its widest sense as a tangible, intelligible symbol enveloping and carrying the abstract concept, is man's dominant intellectual tool, man's distinctive and characteristic mechanism for the comprehension and control of life and nature. Not only does it transcend infinitely the reach and the power of the physical tool for the direction of the mind and the reconstruction of nature and society, but also it embraces and includes by its very essence the functions of the physical tool, and hence is primal and typical in its (cultural) significance."

In the same spirit Judd speaks of language as "the fundamental institution." He says: "All the inventions of the types which have been discussed, except possibly the most primitive tools, imply the existence of a fairly well-developed language" (*op. cit.*, p. 187).

Finally, Wissler says: "Language plays the fundamental rôle in all (human) social phenomena; it is not only the carrier but the formulator of the (human) social world" (*op. cit.*, p. 82).

[22] Wissler rightly points out (*op. cit.*, p. 87): "The inventive process resides in individual organisms; so far as we know, it is a function of the individual organism."

All Culture a Result of *Invention* in the Broad Sense

Now all of these things—language, science, art, morality, religion, government, and industry—make up the sum of human culture. They are all evidently things which in the broad sense are invented by the human mind and then diffused throughout groups by various means of communication, but mainly through the vehicle of language. All of these have to be learned or acquired by each individual. Hence, hereditary endowments play only a small part in culture. As we shall see, they may furnish the ability which leads to the invention or the ability which makes possible the learning how to use an invention; but hereditary endowments do not directly enter into the matter of a group's culture. They only furnish a basis. *Culture evolves by laws of its own which are only indirectly affected by the laws of organic evolution.*

All Culture Is Acquired

We see now that everything cultural has to be learned or acquired by individuals; but it is learned or acquired by a *group* of individuals. Otherwise it does not become a part of the group's culture. Because all culture is learned, there may be under certain conditions great leaps in the cultural acquirements of individuals. Thus, a child born in a savage society where only the simplest stone tools are used may, if brought up in a highly civilized group, learn the use of the most complicated machines and indeed acquire the whole culture of his adopted group. His ability to learn and utilize such culture depends only upon normal human capacities. There is no evidence that any specific ability to assimilate and utilize a culture is born in any child. Neither does a child, in acquiring a high culture, have to pass through all the stages by which that culture was reached. As in the example just cited, any child afforded the proper environment may begin at once to learn the highest culture which man has achieved.

Cultural Evolution Not Uniform

It follows that, because all culture is acquired or learned by groups, it will not be uniform, since there are different ways of learning to do even the same thing. *There is no single typical line of cultural evolution except in the broadest sense,* which we will try to explain in the next chapter. *There are, however, inevitable stages of learning or of achieving control, because there are psychological stages in the process of learning.* The mistake of many students of social evolution in the past has been to suppose that there was just one typical line of concrete development in culture. The scientific study of the cultures of the peoples of the world has left this idea without any standing. We must recognize the fact that there is no single line in the evolution of objective culture. There have been many divergent evolutions in culture. This does not prevent us, however, from trying to find psychological steps or stages in the process of learning control over physical nature and over human behavior. Cultural evolution, moreover, is controlled not only by the nature of the process of learning and of invention, but also by the materials and physical conditions which nature affords. Cultural evolution, as the human phase of social evolution, is not free to take any development which man's fancy may dictate. It must develop within the bounds set by man's heredity and by environmental conditions. It must also develop within the bounds set by group efficiency and survival. To this extent cultural evolution is controlled by organic evolution, on the one hand, and by social evolution, on the other. It is a process which goes on within the framework established by these two antecedent processes. A culture which oversteps these bounds is just as liable to be eliminated by the forces of organic and social evolution as a species of plant or animal unadapted to its environment is liable to be eliminated by natural selection. Nevertheless, we shall see that errors in cultural development[23] are very common, and that their elimination by means of natural selection is relatively rare, at least within the space of human history. Errors in cultural development, if corrected at all, are usually corrected by the advance of intelligence, that is, by the further development of culture itself. These matters can become plain, however, only when we consider the facts of culture. Fortunately, the advance of anthropology in the last few decades has brought to scientific knowledge the main facts of cultural development.

Summary

To summarize: Social evolution has produced culture and is a much broader concept than cultural evolution; but as culture is the differential trait of human society, cultural evolution may be considered as the human phase of social evolution and as the controlling factor in the evolution and in most of the behavior of human groups. The evolution of the culture of a group will determine the direction of its social evolution. *The direction or trend of human social evolution in general must accordingly be sought in the general principles of the evolution of culture.* Many things in human life can be studied only as tendencies. We can observe facts here and there, over perhaps a long period of time, and thus we can get the direction of a movement even though we cannot observe its beginning or its end. Such will be our method of studying human social evolution.

SUGGESTED READINGS

TOZZER, A. M.—*Social Origins and Social Continuities,* Chap. I.

BARTLETT, F. C.—*Psychology and Primitive Culture,* Chap. II.

BERNARD, L. L.—*Introduction to Social Psychology,* Chap. X.

---

[23] *Error* is, of course, used in a relative sense in this book, in the sense in which it is used in the scientific expression, *trial and error*. The very method of evolution by trial and error presupposes that there will be errors, and these more numerous in the early stages of the process than in the later.

Boas, F.—*The Mind of Primitive Man,* Chap. I.

Ellwood, C. A.—*The Psychology of Human Society,* Chap. II.

Goldenweiser, A. A.—"Psychology and Culture," in *Publications of the American Sociological Society,* Vol. XIX (1925), pp. 15-23.

Goldenweiser, A. A.—*Early Civilization,* Introduction, pp. 3-27.

Judd, C. H.—*The Psychology of Social Institutions,* Chaps. I, II.

Ogburn, W. F.—*Social Change,* Part I.

Sumner, W. G.—*Folkways,* Chaps. I, II.

Wissler, C.—*Man and Culture,* Chaps. I, II.

Wissler, C.—"Recent Developments in Anthropology," especially pp. 75-96; Chap. II in Hayes, *Recent Developments in the Social Sciences.*

CHAPTER II

STAGES IN CULTURAL DEVELOPMENT

CHAP. II

Reality of Cultural Evolution

IF all the peoples of the world were passed before us, to say nothing of all the peoples of history, we should get an impression not only of diversity of cultural development, but also of different levels or stages of cultural development more or less closely related to one another; and this impression would be correct, in spite of much that has been said upon this matter which is confusing. There are still people who deny that there has been cultural evolution, just as there are some who deny that there has been organic evolution. The difference is that apparently those who deny cultural evolution are scientific men;[1] while those who deny organic evolution we now put in the non-scientific class of people. The fact is, however, that anthropology and archæology have established as distinct stages of cultural evolution as biology and geology have of organic evolution. There is, indeed, much less reason for doubting cultural change, or cultural evolution, than for doubting organic evolution, because cultural changes we can see constantly going on about us. We live in the midst of a rapidly changing culture. We may, of course, doubt whether it is changing for the better; but we cannot doubt that it changes. Nor, if we adopt some simple standard to measure change, can we doubt that cultural changes have gone on since man's history first began upon this planet.

---

[1] As late as 1924 a well-known anthropologist was quoted, with much approval, in a book published by a professor of sociology in an orthodox denominational school as follows: "Cultural evolution is to my mind the most insane, sterile, and pernicious theory ever conceived in the history of science—a cheap toy for the amusement of big children." It is possible, of course, that the anthropologist in question referred to a special theory of cultural evolution, namely, the carrying over of the principles of organic evolution to cultural evolution (a practice now condemned by the best social scientists); but the language is unfortunate, to say the least. See Goldenweiser's chapter on "Cultural Anthropology" in Barnes' *History and Prospects of the Social Sciences.*

Compare the contrary statement of Malinowski (Article "Anthropology" in *Encyclopedia Britannica,* Thirteenth Edition, p. 133): "The evolutionary point of view is fundamentally sound when correctly set forth."

Even more unequivocal is the assertion of Wissler (*Man and Culture,* p. 212): "As a demonstrator of evolution culture has vastly more to offer than zoölogy, for at the present moment all the cultures of the world are evolving, none are stable, and to him who yearns for a closer acquaintance with the methods of nature, culture offers immediate returns."

Classification Necessary in Science

We must evidently adopt some simple standards of measurement if we are to classify in any order the stages of cultural development. Let us remember, first of all, that classification is of the very essence of science. Science is *organized* knowledge. There can be no scientific understanding of facts without some scheme of classification; and if we reject one sort of classification, it is only because we find that another kind of classification more nearly fits the facts. Now, as we said in the previous chapter, everything cultural is learned. The cultural is a process of control over physical nature and human behavior which has to be learned by the individuals of a group. Hence, to classify stages in culture we must find the *necessary* stages in the learning process, or in the process of control. In this sense *our classification of stages of cultural development must be psychological.*[2] Modern methods of classi-

---

[2] The denial of the possibility of a scientific classification of the states or stages of culture by some anthropologists undoubtedly is due to an inadequate appreciation of the relations of psychology and culture. The clear understanding *that the cultural process is a learning process* opens the way to a scientific classification.

This point is missed even by Tozzer, who, while apparently skeptical of all classifications, suggests a purely objective classification of cultural stages, when he says (*Social Origins and Social Continuities,* p. 11): "It is perhaps possible to say that man first developed tools, then domesticated his food fication of cultural facts may often seem, therefore, at variance with traditional classifications. Yet traditional classifications, if reinterpreted in the light of modern knowledge, may be found to be helpful also.

Stages in Culture

Now, if again we pass all the peoples of the world before us, we shall find that certain easy divisions can be made among them; and that these correspond to real stages in cultural development, and in some cases correspond also to traditional classifications which have been made by students of human culture in the past. First of all, we will note that we can divide peoples into (1) those that can read and write, or literate peoples, and (2) those who have no knowledge of reading and writing. These latter we may term illiterate, or better, "pre-literate." If we leave aside the literate peoples for the moment and pay our attention to the pre-literate, we shall find that the pre-literate peoples fall into two great classes, (1) those who practice more or less cultivation of the soil or have domesticated food animals, and (2) those who do not cultivate the soil at all and have no domestic animals. In other words, the pre-literates may be divided into *cultivators*[3] and *non-cultivators*. The non-cultivators live entirely by fishing and hunting and by collecting wild food of various kinds. The pre-literate cultivators exhibit various stages in the cultivation of plants and animals for food. Many of them continue

---

supply in the animal and plant world, and finally domesticated power." The first two stages of this classification correspond to the first two which we adopt; but the third stage obviously depends upon means for the external storage of knowledge, ideas, and standards—that is, upon *literacy*, or the invention of written language.

[3] In this book *agriculture* and *agricultural* will be used usually to include the domestication of food animals. Historic agriculture, as Goldenweiser points out, involves the domestication of animals; so also may we consider primitive agriculture broadly as embracing the process of domestication, because the domesticated food animal gives an indirect control over the plant world as a source of food supply, while the actual cultivation of the soil gave a more direct control. *The essential classificatory fact is whether or not a people have artificial control over their food supply.*

to get a part of their livelihood by hunting and fishing, and this we shall find to be true even of literate peoples. Nevertheless, as soon as any cultivation of plants and animals for food is practiced by any part of the group, we should no longer classify such a group in the purely hunting and fishing stage. Many of the American Indian tribes, for example, had some degree of agriculture carried on mainly by their women, while the men still devoted themselves largely to hunting and fishing. Yet we should classify such a tribe as agricultural.

If we examine our groups still further we shall find that they can be broken up into smaller classes. Thus the hunting and fishing pre-literates show various degrees of development in their clothing, shelter, and tools. The agricultural pre-literates begin with the simplest domestication or hoe agriculture, but finally end with the plow and perhaps extensive herds of domestic animals. In the same way we shall find various stages of development among literate peoples. Nor are these stages fanciful or arbitrary classifications. *They mark necessary steps in that process of learning and control which constitutes culture.* Quite evidently the pre-literate condition had to precede the literate, unless we go back to the fanciful suppositions of mythology and suppose that there was a golden age at the very beginning of human history in which everybody was highly intelligent or learned. Quite evidently, also, the hunting and fishing stage had to precede the cultivation of the soil; and quite evidently in agriculture there were necessary steps of development, since human conditions and the conditions of physical nature are what they are. Quite evidently, also, from the invention of writing and the reading of writing there has been a gradual series of steps in the improvement of man's control over this most refined tool of his culture. We may especially point out that there is a great difference between peoples among whom only a small class is literate, say the priest class, and peoples among whom knowledge of reading and writing, or, as we say, education, is universal. Only a few of the most advanced literate peoples even yet are characterized by universal literacy. In fact, strictly speaking, no people has yet reached that stage of development.

Names of Cultural Conditions

We see, therefore, that there are steps or stages in cultural development which are unavoidable, for the simple reason that cultural development is a learning process. Now this has been recognized in a rough way since the scientific study of human culture began. Early students of culture, such as Lewis H. Morgan in his *Ancient Society,*[4] classified the stages of cultural evolution as those of savagery, barbarism, and civilization. He defined *savagery* as the stage of hunting and fishing; *barbarism* as the stage of primitive agriculture; and *civilization,* in the narrow sense of the term, as the stage which began with the invention of writing and the keeping of written records. This classification is, of course, much older than Morgan, though he was among the first to attempt to give it precision. Of late this classification has been much discredited, and some anthropologists refuse entirely to use such terms as *savagery, barbarism,* and *civilization.* They hold that the terms are not only inaccurate, but imply characterizations of peoples quite unjustified by the facts.

Of course this attitude is entirely correct if we take the popular sense of the terms just used. Popularly savagery is supposed to be a stage of unmitigated cruelty and ferocity; but pre-literate hunters are often among the gentlest and most peaceful of human groups. Again, popularly barbarism is supposed to be a stage of crudeness and cruelty; but the primitive pre-literate agriculturist was often a home-loving, hard-working peasant. Higher social values did not begin wholly with the stage called civilization, ushered in by the invention of writing and the keeping of written records. On the contrary, we shall see that there has been probably more war, bloodshed, and cruelty in this stage than in all of the other stages of human history combined.

---

[4] Chap.I.

But if we get out of our minds the popular sense of such words as *savagery, barbarism,* and *civilization,* we shall find that they are useful categories of classification.[5] They are brief and more easily handled than the circumlocutions which we should have to employ if we did not use them. We shall, accordingly, keep these traditional terms without keeping the implications attached to them by their popular meanings. We shall call the pre-literate hunters "savages," and the pre-literate agriculturists "barbarians," while we shall speak of the peoples that have written records and literature as "civilized"; but this is all that we mean for the present by these terms. Morgan also found it to be convenient to divide savages into "upper," "middle," and "lower," and to divide barbarians and civilized peoples in the same way. Others have suggested a simpler division into "barbarians," and "semi-barbarians," "civilized," and "semi-civilized." Such terms are also convenient, and we shall occasionally use them, but in the main we shall keep to the terminology suggested by Morgan, without, however, following his principles of division or his specific classification, which will no longer stand critical examination. Here we may remark that the use of the pioneers in anthropology, like the pioneers in all other sciences, should be critical. For present scientific work they are suggestive rather than authoritative.

Inventions and Stages in Culture

It is evident from the principles of division which we have already used to measure culture that we must take the great inventions which have been used to control physical nature, on the one hand, and control human behavior and social standards, on the other. Of course, verbal language and fire making must be reckoned among the greatest steps in human culture, as they have given so much control of human behavior and of physical nature; but we have never known within historic times peoples without verbal language and the ability to make and control fire. Therefore these achievements of man afford us little help in classifying the stages of culture, except that the invention of written language, enabling man to store up ideas and knowledge and diffuse them to all who could be taught to read, was obviously the great initial step in the control of the world of ideas, of knowledge, of spiritual achievement. We shall find it convenient, accordingly, to adopt as our measure of material culture, or man's control over physical nature, the various methods of obtaining subsistence or food supply;[6] and to adopt as our measure of non-material culture, or man's control over his psychic and social life, the various methods of preserving and diffusing ideas, knowledge, and standards. Of course, many subsidiary inventions, such as those connected with clothing and shelter, will have to be considered of great importance in material culture; while certain achievements in government, social organization, and religion will need to be considered with reference to non-material culture.

---

[5] The giving-up of these traditional terms by anthropologists has resulted in much terminological confusion. Thus Wallis (*An Introduction to Anthropology*) apparently includes in savagery all pre-literate culture; so also Tozzer (*op. cit.*). Other anthropologists avoid these terms altogether.

Purpose of Classification

Any classification of the existing peoples of the world upon this basis will necessarily have to be highly tentative. It should be remembered, however, that our object is not so much to classify peoples as to indicate necessary steps or stages in cultural development. There may be disagreement as to where a certain people should be placed in the scale which we construct, but the important thing is to have a scale. Therefore, we shall only attempt to give certain examples of peoples which seem to fit into certain classes in our scale, and not an exhaustive classification of peoples. Our object is to get the direction and trend of the development of culture rather than to pass judgment upon the present cultural conditions of various peoples. Moreover, because the culture of the world is now so rapidly changing, it seems best to take an epoch sufficiently remote so that we can study it through written records, and yet sufficiently near so that our records will be fairly abundant and trustworthy. We shall, accordingly, take *the peoples of the world in their cultural condition in the first half of the nineteenth century*, as described by reliable authorities. With this understanding as to the purpose of our classification and the source of our examples we would propose the following classification:[7]

---

[6] It is a common practice of economists and of some anthropologists to adopt a purely economic basis for the classification of the stages of culture. But such a basis is quite inadequate to show the really significant changes in cultural evolution. Thus Professor Gras in his *History of Agriculture in Europe and America* proposes to divide the stages of culture as follows: (1) collectional economy (hunting, fishing, grubbing, and so forth); (2) cultural nomadic economy (pasturing or planting or both); (3) settled village economy; (4) town economy; (5) metropolitan economy. While this classification may be adequate for purposes of economics, it is not adequate for anthropology or history.

Cultural Classification of Mankind

I. Savages (pre-literate peoples who live wholly by the collection of wild foods, hunting, and fishing, with no cultivation of the soil or domesticated food animals).

a. Lower savages (pre-literate peoples who live mainly by collecting wild foods and hunting.[8] They wear little or no clothing, have no houses, use rock shelters or caves as dwellings, and are almost always in a peaceful condition).

---

[7] This classification, while derived from Morgan, is a modification (more or less radical) of the one used by Sutherland in his *Origin and Growth of the Moral Instinct,* Vol. I, p. 103 ff.

[8] Preceding the hunting stage there was possibly a pure collectional stage; but no surviving people is found in this stage. The lowest peoples we know have already reached the hunting stage.

Examples: the Bushmen of South Africa; the Veddahs of Ceylon; the Semangs of the Malay Peninsula; the Akkas of Central Africa; and the Mincopies of the Andaman Islands.

b. Middle savages (pre-literate hunters and fishers. Nudity among them is still common. Their dwellings are mere protective screens against the wind, but on account of somewhat better weapons their groups are somewhat larger than those of the lower savages. They are generally in a semi-peaceful condition with only occasional conflicts between their groups).

Examples: the Australian aborigines; the Tasmanians; and the Fuegians.

c. Upper savages (pre-literate peoples still living wholly by hunting and fishing, with no cultivation of the soil, but with clothing made of skins, sometimes quite skillfully, and with dwellings far more comfortable. Some upper savages are peaceful, but some are warlike, and cannibalism is found among them. On account of their superior weapons their groups are larger than those of the middle and lower savages).

Examples: the Eskimos of the Arctic coasts of North America; the Athapascan Indians of the Canadian North; the Botocudo Indians of Brazil; the Patagonian Indians of Argentina; and many of the Siouan tribes of North America.

II. Barbarians (pre-literate peoples cultivating the soil or keeping domestic food animals in some degree, the work often being done by the women, while the men remain hunters).

a. Lower barbarians (pre-literate peoples who still depend a very great deal upon hunting and fishing for their food, but practice agriculture, more or less, or keep domestic food animals, the main work being done by the women. Their clothing still consists of skins and the bark of trees; their dwellings are fairly well constructed and relatively fixed. Pottery making is common among them, but not universal. Crude forms of weaving also appear among some. Lower barbarians are usually warlike, but very little slavery exists among them on account of the slight development of agriculture.[9] In the tropics cannibalism is common among them. Their groups are much larger than the savage groups on account of their cultivation of the soil and their possession of superior weapons). *Examples:* many of the North American Indian tribes, such as the Algonquins,[10] the Iroquoians, and the Siouans; the Papuans of New Guinea; most of the Melanesians and some Polynesians; the Dyaks of Borneo; the Hottentots[11] and Bechuanas of South Africa.

b. Middle barbarians (pre-literate peoples cultivating the soil, with more or less domestic animals, on which they depend in part for food supply. Pottery making and weaving are generally practiced, and metal working is carried on to some extent. Clothing is better made and the dwellings more substantially constructed and generally permanent. All middle barbarians are warlike, slavery is the rule among them, and in the tropics cannibalism is quite common. They are found in large groups up to 100,000 in number of individuals).

---

[9] According to the *Handbook of the American Indians,* Vol. II, p. 599, with the exception of the area of the Northwest Pacific coast, "traces of true slavery are wanting throughout the region north of Mexico" among the American Indians.

[10] "The Algonquian tribes were mainly sedentary and agricultural, probably the only exceptions being those of the cold regions of Canada and the Siksika of the plains." *Handbook of the American Indians,* Vol. I, p. 41.

[11] The Hottentots did not cultivate the soil, but had herds of cattle. Some writers classify them among the savages, but on the principles of classification adopted they were barbarians.

Examples: most negro peoples of West Africa, such as the Dahomeyans, the Ashantees, the Fantees, the Yorubas; most of the Bantu peoples of the Congo basin; the Zulus of South Africa; the Waganda of Uganda; the Fiji Islanders; most of the Polynesians, such as the Hawaiians, Samoans, and Tahitians: and the Yakuts of Siberia.

c. Upper barbarians (pre-literate peoples usually with large flocks and herds, the men attending to these while the women remain at home weaving and pursuing other household duties. Metal work is advanced and the use of iron is quite frequent. The peoples are warlike and generally monarchical, with slavery the rule and with traces of cannibalism remaining among some. Groups may be as large as one million individuals).

Examples: the Gallas and Somals of Eastern Africa; the Tungus of Siberia; the Malagasy of Madagascar; the nomad Kirghiz peoples of Siberia, and the nomad Arabs of the Arabian desert.

III. Civilized peoples (literate peoples with written records, practicing agriculture, and with a more or less settled government).

a. Lower civilized (beginning with the invention of writing and extending to the popularization of literature. These peoples always have some written records and written literature. Usually their laws are also written. Written records, written literature, and written laws make possible the permanency of their traditions and customs because of the opportunity of recording them through writing. More important still, writing makes possible the steady accumulation of knowledge.

Illiteracy among the lower civilized is still the rule, literacy being confined to the upper political and economic classes, at first to the priest class. The regular use of iron becomes common after the earlier stages, and the plow is regularly used as an agricultural instrument. Clothing comes to be well made of woven fabrics and is one of the main forms of luxurious display in upper classes. Cities begin to be built in brick and stone, with a high development of architecture in public buildings. Formal courts of justice are established and professional classes begin to become differentiated. War is held in high esteem, with a professional soldier class which tends to become identified with the governing class. Government is usually autocratic, slavery or serfdom is practically universal, and religion is theological).

Examples: the Arabs and many other Mohammedan peoples of Asia and Africa, including a great number of Turkish peoples in Asia; the Mandingans, Haussas, the Songhays of Africa; the Manchus of Manchuria; and the Annamese of Indo-China.

b. Middle civilized (reading and writing become common among people of some means and with leisure; hence literature gains prestige, and science begins to take its rise. The various arts and professions begin to find a scientific basis. The fine arts are especially honored among the ruling class; architecture, sculpture, and painting come into high repute among the cultured few. Public buildings are usually built of stone, and cities begin to be beautified. There are fixed codes of law reduced to writing, and government officers are numerous and carefully graded. Government is, however, still autocratic, and slavery and serfdom still remain the rule. Theological religion with skepticism is common in the upper classes. War is still highly honored, but as commerce and trade flourish, a peace of power is aimed at).

Examples: practically all European peoples down to the nineteenth century and many to the end of the nineteenth century. Here must be included also the Chinese, the Japanese, and most of the peoples of India. We may note among historical peoples the Greeks, Romans, and several other peoples of the Mediterranean seaboard.

c. Upper civilized (the mark of higher civilization is universal literacy or universal education.[12] Formal education of all classes through a public school system becomes established. Science flourishes as the schools promote research, and is respected as scientific information and knowledge are diffused among the masses. Agriculture tends to become scientific, and scientific control is gained over food and health conditions. All the people are adequately clothed and housed. Democracy is formally established in governmental organization and is increasingly realized in political and social life. Government and law increasingly aim at general welfare rather than at class control. Literature and the fine arts become popularized and appreciated by all. Religion becomes humanitarian. Slavery and serfdom are abolished, and aristocracy of birth tends to be replaced by an aristocracy of personal ability and excellence. War loses its prestige, and militarism is condemned. Within higher civilization itself many stages of development begin to appear possible; for example, universal liberal education, the just distribution of wealth so as to promote the welfare of all classes, the elimination of preventable disease, and the abolition of warfare).

---

[12] This is the so-called "Cultured" stage or "Enlightenment" of some authors; but since the whole process of civilization, in the narrow sense, from the invention of writing on, is *a process of control over the psychical,* it cannot be set apart, but logically must be regarded as the upper or relatively completed phase of the process of civilization.

Examples: it may be doubted whether any people has yet reached upper civilization, since universal literacy is not completely established in any modern nation. Universal education, however, became established among the leading European peoples in the nineteenth century, also among the Japanese. Evidently the majority of the peoples of the white and yellow races are just now in transition from middle civilization to upper civilization. As regards the masses of the people, it would be correct to say that they are in transition from semi-civilization to civilization, since the masses are only beginning to come into possession of that literacy which is necessary for the development of critical intelligence and of control over knowledge and ideas.

Such, in brief outline, are the stages in culture which we can see when we study the peoples of the world. We have made the "horizon of agriculture" and the "horizon of recorded history" divide the world into three great groups which for convenience we have termed the savage peoples, the barbarian peoples, and the civilized peoples. This fundamental division is illustrated for the peoples of the Old World by the diagram adopted by Wissler, which is reproduced on page 32.[13] We have attempted a threefold subdivision of each of these groups, though here the lines of division are not so clear. We have briefly sketched the cultural complex which appears to be associated with each of these divisions and subdivisions, though here we must remember that there will be much overlapping and among many peoples certain parts or items of a cultural complex will be missing. *There is,* as we have said, *no consistent development of culture except in its broad, general outline.* Moreover, all classifications in science are teleological or purposive. They are made to illustrate or form a basis for some generalization. Other classifications of the stages of culture and of peoples are possible.

---

[13] Compare Wissler, *op. cit.*, p. 220.

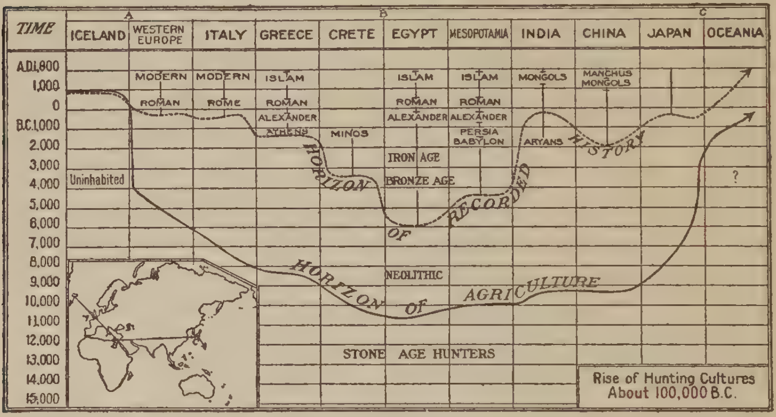

FIGURE 1

(Wissler, *Man and Culture.* Courtesy Thomas Y. Crowell Co.)

The Technological Classification of the Stages of Culture

In fact, a multitude have been proposed. Some of these will help us to understand better the classification we have just outlined. The classification of cultures according to the type of tools or implements used is one of the best established and most helpful of all classifications. Let us note what this classification is very briefly as it has been outlined to us by students of archæology and technology:

I. The Eolithic stage, or the dawn of stone implements, in which, however, the main implements used by man must have been of wood, shell, and bone. Probable duration from 200,000 to 500,000 years.

II. The Paleolithic stage, in which man used *chipped* stone implements along with wood and bone. Within this stage in Europe, archæology has clearly marked stages of the development in the chipping of stone implements, from the pre-Chellean to the Azilian.[14] It is usually estimated that Paleolithic times in Europe lasted at least 100,000 years.

III. The Neolithic stage, in which man used *polished* stone implements along with implements of chipped stone, wood, and bone. This stage began in Europe about ten thousand years ago. In Europe it seems to have been accompanied always by some degree of agriculture, and hence coincides with the beginning of barbarism.

IV. The Bronze Age, in which European peoples began the use of copper and bronze along with their stone, wood, and bone implements. This began in Northern Europe about 2,000 B. C., and nearly coincides with the stage of upper barbarism.

V. The Iron Age, in which iron began to be used, slowly displacing bronze and stone implements. The widespread use of iron nearly coincided with the use of writing and the beginning of civilization in the narrow sense.

VI. The Age of Steel, which is the age of power machines in which we are now living and which began in the latter years of the eighteenth century with the rise of modern science and the Industrial Revolution.

The diagram from Wissler shown on page 34 graphically sets forth these technological stages for the main divisions of our world.

Necessary Steps in Learning

Now it is evident that this process of developing physical tools or implements has also been a learning process, and hence

---

[14] For a discussion of these stages, the reader will do well to consult MacCurdy's monumental work on *Human Origins*. They are very briefly described in Chapter VI of this book. The Azilian stage of the Paleolithic and the Champigian of the Neolithic are put together by some writers and made a separate "Mesolithic" stage coördinate with the Paleolithic and the Neolithic. Some writers also make a separate "Copper Age."

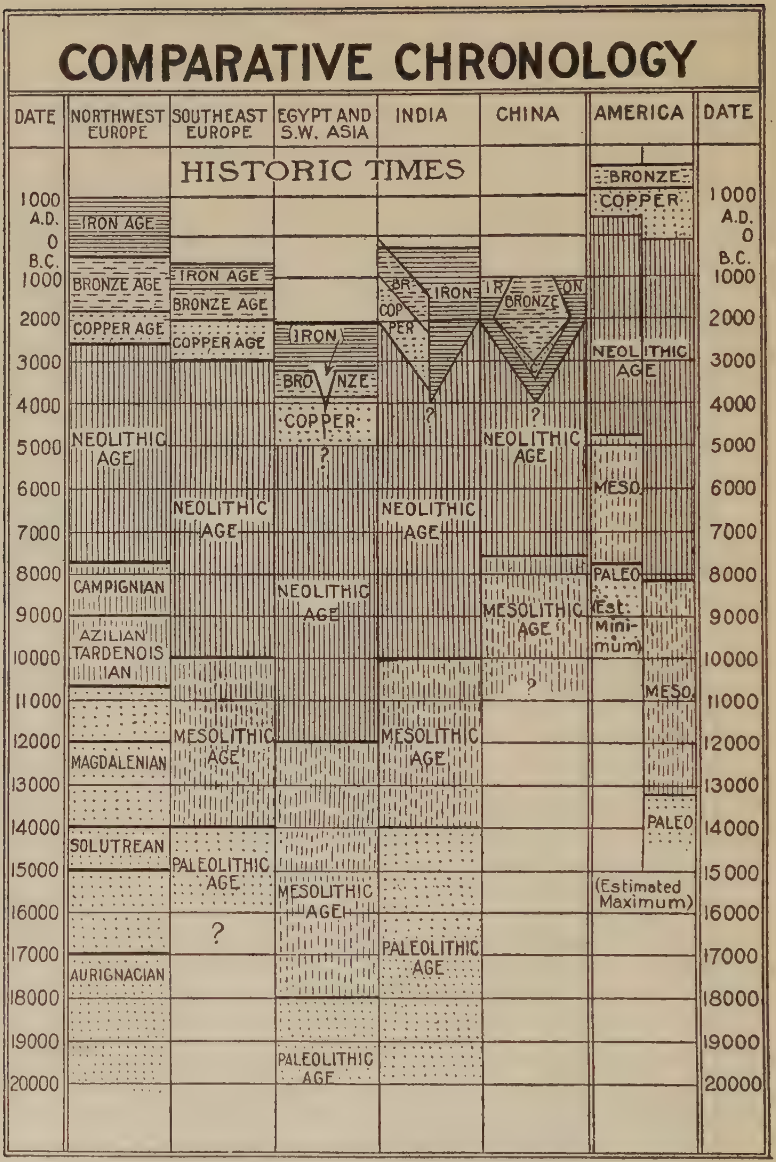

Figure 2

A Chronological Chart of Cultural Stages (Taken from Wissler's *Man and Culture*, p. 218. Courtesy of Thomas Y. Crowell Company).

was necessarily a step-by-step process. For example, the Paleolithic stage of chipped stone implements necessarily preceded the making of polished or Neolithic implements. Again, the use of stone implements necessarily preceded the use of metal. As we come to study the process of invention we will see why this is so. Of course, much would depend upon the materials furnished by physical nature. Thus, in countries where there was practically no copper or tin, no Bronze Age would develop. But if pure copper was easily found and began to be used to make implements, then, as Wissler says, "a copper complex may be expected to mother a bronze complex." Of course a bronze complex would easily mother an iron complex, and an iron complex might be expected sooner or later to mother a steel complex. Thus the cultural ladder has been ascended in the main rung by rung, though on account of borrowing by the peoples from one another and on account of differences in materials afforded by physical nature, the record is often confused.

Antiquity of Culture

Another important fact which stands out in this classification of archæological or technological stages is the immense antiquity of culture and of the simpler cultural patterns. Compared even with the Paleolithic, the cultural patterns of the Neolithic seem but of yesterday, while the prehistoric Metal Ages seem contemporaneous. Let us note also the relative shortness of barbarian culture, which in Europe, at least, seems to have begun with the Neolithic. On the other hand, the immense duration of savage culture, that is, the hunting-fishing-collecting stage, is most impressive. At least nine-tenths of all man's existence upon this planet has been passed in this most primitive stage, and probably more than that. It is apparent that civilization, in the narrow sense of keeping written records and of possessing control over ideas, has just begun. If our classification of the peoples of the world has accomplished nothing else than to make this clear, it has performed a most important task. While culture itself is very old, civilization in the narrow sense is very young.

Traits of Savagery

Let us note somewhat more carefully the traits of each of these great stages of culture in which man has lived, savagery, barbarism, and civilization. As Wissler points out, certain cultural traits naturally cohere and form a cultural complex. Certain cultural traits, in other words, typify these great stages of culture and may be said to be characteristic of them. It is true, as Professor Tozzer says, that mistakes have been made in the social sciences by trying to envisage a "typical savage." He says, "There is in reality no such creature. But out of the mass of facts of the daily routine of a savage certain practices stand out as common among many peoples." In other words, there are, after all, certain facts or traits which are common to all savage peoples. Savages have often been called "nature peoples," because it has been supposed that they lived in a complete state of nature. But, as we have seen, there are no human groups now existing without culture, and we have no reason to suppose that there ever have been human groups without some degree of culture. Apparently culture is coeval with man. But its earliest beginnings were very feeble, and even some of the savages who existed down to the nineteenth century had only a minimum control over nature, such as might be afforded by a few implements and weapons of wood, shell, bone, and stone. Evidently during the whole of the savage stage man remained content with that minimum control over physical nature which a few simple tools could give him. He attempted no artificial control over food supply. He was essentially still a child of nature, living off of the wild fruits of the earth and of the animals which he could kill and eat, making no attempt to control his own destiny. While savage groups possessed language from the beginning, as we have every reason to believe, since existing savages have highly developed languages, man's consciousness must have remained largely animal-like. It was, at least, as we shall see, a simple consciousness, largely uncontrolled by accumulated knowledge. The whole energy of life must have been taken in providing for absolute necessities. Hence we are not surprised to find that savages lived widely scattered in small groups, with little opportunity for either fighting one another or coöperation on a wide scale. Hence savage groups were peaceful probably during the greater part of their long existence upon the earth. Their struggle was with the animals below them and with the adverse forces of physical nature. Let us note further that the savage as a hunter was relatively well adjusted to his simple existence. That was probably one reason why his culture developed so slowly during 100,000 years or more. Nevertheless, during this time the foundations of all of the essential elements in our present culture, such as tool making, art, language, religion, morality, and government, were laid.

Traits of Barbarism

The static or stagnant culture of savagery was suddenly changed when agriculture was invented, probably between ten and fifteen thousand years ago. The cultivation of the soil and the domestication of animals changed absolutely the conditions of man's existence. He had now before him the possibility of an indefinitely expanding artificial food supply. He suddenly gained a degree of control over physical nature and the conditions of his own existence. His numbers were no longer strictly limited by the bounty of nature in the way of wild fruits and game. Human population and the size of human groups could increase. Moreover, with agriculture came other forms of wealth, such as stored-up food supplies and other raw materials. Human groups were thus able, to some extent, to be independent of immediate natural conditions. They grew in size and number very rapidly. The population of the earth had stood nearly stationary during savagery, or increased with incredible slowness, but with the coming of agriculture in fertile river valleys and other favored spots, it began to grow by leaps and bounds. Human groups would not only come in contact with one another, but into competition with one another, in a way in which they had not been in competition during savagery.

Moreover, groups that did not cultivate the soil had the opportunity to plunder those that did. Predatory practices grew up, and with the predatory practices came organized warfare. Some groups found it to their advantage to live by plundering other groups, while groups that were plundered found it necessary to organize for defense. From war and the plunder of human groups under some circumstances sprang cannibalism. In general, however, it was more profitable to save women and children and keep them for various uses which might be made of them. Thus slavery arose. The captured women were not only slaves but were also held as wives and concubines. Thus polygamy arose. Meanwhile, the successful predatory groups increased their wealth, and barbaric luxury and splendor began to manifest themselves.

The reader will note that, after agriculture, war was the chief factor in determining the cultural complex of barbarism, and that *out of war grew most of the opprobrious social traits which we find in human groups from early barbarism to the present time*, namely, *those connected with the exploitation of human beings in some form.* It is not too much to say that militancy and predatoriness were the chief social traits of the barbarian stage of culture. New power had suddenly been thrust into the hands of man by the cultivation of the soil, the domestication of animals, and the invention of many new weapons. Human groups were strange to one another, and nothing was more natural than that this power should be used in a predatory way. To be sure, we must not forget that the social virtues the foundations of which had been laid during the long ages previous did not disappear; only they could hardly be expected to function in such a new situation. As Parsons says,[15] "The barbarian is not cruel, rapacious, relentless, and thoroughly irresponsible. On the contrary, he is generally peaceable among his fellows, highly moral (in the strict meaning of that term—that is, conforming to the mores), and exceedingly religious." We may accept this statement if we understand that "among his fellows" means "in his own group." It was the relations between groups which exhibited the lack of social morality. The barbarian, in other words, was characterized by a narrow consciousness of kind, and so by "group morality." His consciousness in general was turned toward himself and toward his group. It was essentially a self-centered consciousness, because the immediate group was identified with the individual's interest. Consciousness was no longer merely animal-like as in the savage stage. It was now awake, but self-centered and so bent upon power and self-indulgence. The more exact statement of the attributes of barbarian culture and barbarian character we shall have to leave till later chapters.

Traits of Civilization

But barbarism was but a transitional stage of civilization. The control over nature which agriculture gave man brought some men leisure, and it was inevitable that man should attempt to control his ideas, knowledge, and traditions—the very processes at work within him which determined his own behavior. He began to keep records, put his ideas down in symbols, and then criticize them. He began, in other words, to come to a consciousness of culture itself, to social self-consciousness. But the institutions which he had developed in barbarism, such as war, autocracy, and slavery, naturally continued. The early stages of civilization were also, therefore, transitional, because critical intelligence had not yet been sufficiently developed to reach a true adjustment of human relations on a basis of established knowledge. As the stage of civilization is so very recent, especially for European peoples, we should hardly expect them to be wholly out of the stage of transitional civilization which might be called "semi-civilization." As our classification indicated, it is only of recent years that European peoples have given signs of entering upon a different stage of civilization, which we have called "upper civilization."

---

[15] *An Introduction to Modern Social Problems,* p. 4.

Nature Peoples and Culture Peoples

As barbarism and the earlier stages of civilization may be regarded as transitional, we have another threefold classification of peoples. If we should keep the old term "nature peoples" for the savages, then we should lump the barbarian and early civilized peoples together as "semi-cultured" peoples, while "cultured" peoples would only now be arriving, or perhaps about to arrive. This threefold classification of the stages of culture has this advantage, that it indicates to us that, to balance the long period of savagery, there must be ahead of man a relatively long period of completed culture, or full civilization, of which we cannot see any end. It indicates clearly to us the direction of man's social evolution; that is, toward a completed culture, which on its spiritual side should mean the full socialization of man.

Graphic Representation of Cultural Evolution

What is implied in this conclusion we must leave, of course, for the later pages of this book to develop. But perhaps it will be profitable for us to anticipate our conclusions by a figure and a diagram.[16] Let us imagine humanity like a comet coming out of the darkness of the animal world, moving toward the sun of knowledge. As it moves it gradually rises. But for hundreds of thousands of years its progress is very slow. It remains in the dim twilight of savagery. Then through the light of knowledge it begins the conquest of physical nature with the invention of agriculture. Then it rises to the invention of writing. Now its movement begins, like that of a comet at perihelion, to be very fast. Rapidly passing through barbarism and semi-civilization, it reaches the point where knowledge begins to be universally diffused through a system of universal education. This is the point at which the most advanced peoples are at the present time. We may expect that they will gradually learn to control their life upon the basis of established knowledge. As they become adjusted to the requirements of intelligent living, we may expect not only relatively complete control over physical nature but also over human behavior. A period of adjustment will then be reached the length of which may be comparable to the long dawn of culture. It will be a period of relatively completed cultural evolution.

---

[16] This diagram was first suggested to the author by a study of bodily mutilations (see Chapter X of this book). A somewhat similar idea is set forth by Hayes, *Introduction to the Study of Sociology*, pp. 571-577. The author desires to express indebtedness to Professor Hayes for helping to develop this idea.

If we should put these ideas in the form of a graph, the result would be the presentation of the development of human culture in the form of a parabola, with knowledge as the chief element at its focus. The lower part of the curve would represent the hundreds of thousands of years of savagery, of brute-like ignorance and subjection to the forces of nature through which our race has passed. The upper part of the curve would represent the stage of completed culture or civilization yet to be attained, of mastery over physical nature and over human nature, which we may hope lies ahead of our race. The vertical part of the curve will then represent the transitional stage of barbarism and semi-civilization through which our race has passed on its way from animality to humanity from the darkness of savagery to the light of full civilization. This graph, of course, must not be taken too literally. A graph is only to represent an idea. We shall use many graphs, but it is more than possible that happier ones than those we use may yet be devised.[17] It is especially necessary to warn the reader not to suppose that any analogy with physical processes is here proposed. We believe that cultural evolution is a psychological process, a learning process, by trial and error, and that it has nothing about it of the simplicity and certainty of a mechanical process. *Culture is an appreciation of values brought about through the accumulation of experience.* Tools themselves are nothing but external embodiments of human thought; and institutions, as has been well said, are but "crystallized ideas."

---

[17] The graphs presented in this book, the writer himself feels, are crude, but it is hoped that they will serve to convey his ideas more clearly than he could otherwise have conveyed them.

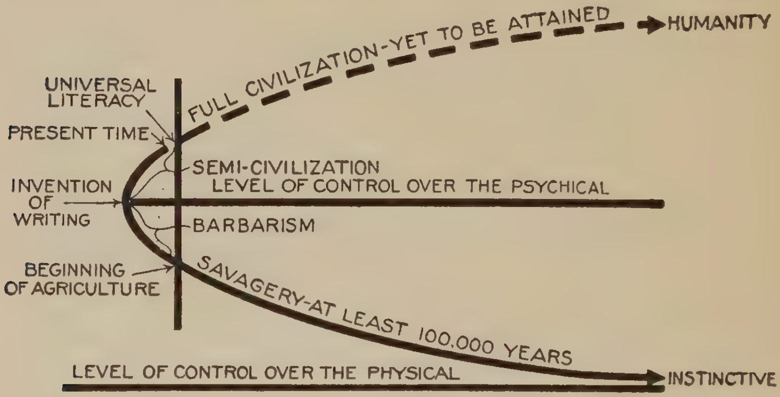
FULL CIVILIZATION-YET TO BE ATTAINED
HUMANITY
UNIVERSAL LITERACY
PRESENT TIME
SEMI-CIVILIZATION
LEVEL OF CONTROL OVER THE PSYCHICAL
INVENTION OF WRITING
BARBARISM
BEGINNING OF AGRICULTURE
SAVAGERY-AT LEAST 100,000 YEARS
LEVEL OF CONTROL OVER THE PHYSICAL
INSTINCTIVE

FIGURE 3

The Curve of Human Culture

Nevertheless, tools and institutions make a new environment for the human individual, an environment which the individual thinks about usually in an impersonal and objective way. This social environment which man has made for himself through his appreciation of values and through his embodiment of these in tools and institutions is then a psychological product. Use of physical or mechanical terms in a literal sense in the description of social and cultural evolution is therefore a mistake. But we do not propose even an analogy with physical processes. Analogy is also misleading. We must try to understand the real nature and method of the cultural process, and this we can do only in terms of human psychology and human history.

SUGGESTED READINGS

WISSLER, C.—*Man and Culture,* Chap. XI.
BOAS, F.—*The Mind of Primitive Man,* Chap. VII.
CASE, C. M.—*Outlines of Introductory Sociology,* pp. 163-194.
CHAPIN, F. C.—*An Introduction to Social Evolution,* Chaps. I-III.
DENIKER, J.—*The Races of Man,* Chap. IV.
GOLDENWEISER, A. A.—"Cultural Anthropology," Chap. V in Barnes, *History and Prospects of the Social Sciences.*
KROEBER, A. L.—*Anthropology,* Chaps. VI, XIV.
MACCURDY, G. G.—*Human Origins,* Vol. II, Chap. XII.
OSBORN, H. F.—*Men of the Old Stone Age,* Chaps. I-IV.
SUMNER, W. G. and KELLER, A. G.—*The Science of Society,* Vol. I, Chap. II.
WALLIS, W. D.—*An Introduction to Anthropology,* Chaps. V, VI.
WILDER, H. H.—*Man's Prehistoric Past,* Chaps. II-V.

CHAPTER III

THE NATURE AND METHOD OF CULTURAL EVOLUTION

CHAP. III

The Essence of Culture

WE have seen that culture is a mass of acquired habits which are learned by the individuals of a group and which are passed from generation to generation by means of custom and tradition. We have also seen that on its inner side culture is a mass of mental patterns, of ideas and values, which become objectified in material invention and in human behavior and relations. In other words, *the essence of culture is invention or achievement.* Is its method of development the same as that which we find in organic nature, namely, the method of variation, transmission, and selection? Many writers have not hesitated to say so, but careful consideration shows us that this is an analogy and tells us little of the true nature of the cultural process.

Factors in the Process of Invention

We are indebted to Professor W. I. Thomas for a more careful analysis of the process of invention and so of the method of cultural evolution.[1] Thomas has shown us that the process is one of crisis, attention, and control. By *crisis* we mean nothing more than that something in the situation calls for a readjustment of habits. A crisis arises whenever old habits no longer work well. It is an interruption or disturbance of habit. This results in the focusing of consciousness upon the situation, which we call attention. Attention is the mental attitude which takes note of the factors in the situation which cause the disturbance, or are the stimuli to activity. It separates these out from the rest of the environment. It calls into action all the powers of the mind, such as memory, imagination, and reason. On the basis of the knowledge gained, a new pattern of action is developed which becomes a control over objective behavior and so over the situation. This new mental pattern is the new invention. It is a device to control behavior and the environment. Thus invention is a result of the human mind attempting to control its environment. We have expressed this by saying that "necessity is the mother of invention." It would be a truer statement, however, to say that the environment furnishes the stimulus, while the human mind "mothers" the invention.[2]

---

[1] See his *Source Book for Social Origins,* pp. 13-26. The epoch-making character of this brief statement for the study of social and cultural evolution has rarely been recognized.

What we have described in terms of crisis, attention, and control is simply the process of learning new patterns of action. This process is not confined to human beings, but is also found among many of the animals below man. Why, then, does it result in culture in the case of man, but not in the case of the brutes? There can be only one answer, which we shall have to return to later, and that is that the human mind is different from the brute mind. The process of attention among human beings may call into action mental powers which we do not find existing among the brutes, especially the powers of abstraction, imagination, and reasoning. These must be among the differential factors which explain man's power to make inventions. Man makes over his world in concept, in imagination, before he makes it over in reality. The best that the brute seems able to do is to adjust himself to his environment; but man undertakes to make over his environment. This he can do, because through his imagination he is able to see how elements in the situation may be manipulated to bring about a result which he desires. Evidently, then, the invention is a more or less artificial control over a situation. The invention is for the sake of the control of the situation and must be understood as a means of control. And if this is true of a single invention, it must obviously be true of all human culture. *All culture is a means of control.*[3]

---

[2] Compare Ogburn's statement in *Social Change,* p. 83.

The Part of Language in Diffusing Culture

As we have already said, probably the most primitive form of culture was language, because it enabled all the members of the group to control their actions with reference to one another. It made possible very definite control by the group over the individual, and so it made possible higher forms of coöperation. Language in its turn thus became the medium for practically all other forms of culture, or for the diffusion of mental patterns. Through language, knowledge, values, and standards become diffused in the group. The patterns for the making of tools, for behavior in certain situations, and for the organization of the group are thus diffused. The invention of an exceptional mind, when thus diffused and accepted by a group, becomes a pattern for group behavior. The whole process is one of learning on the part of the individuals of the group. Another reason is now evident why the brutes make no inventions that endure and develop no culture: it is because they have so little power of intercommunication, because they do not have organized language.

Now, everything in culture is, as we have already said, an invention in the sense in which we have just explained the word. It is a device to achieve control over something. This is obviously the case with a physical tool. Men have often denied that this is the case with art, with science, with religion, with morality, and with government. But from the standpoint of science these are all controls over human behavior, especially over group behavior. Within these spheres of culture we shall find the highest achievements of man, but, so far as science can discover, nothing which cannot be understood in terms of control. As Thomas says, even "liberty is favorable to control, because with it the individual has opportunity to develop ideas and values by following his own bent which he could not develop under repression."

---

[3] This is of course the "functional" view of culture so eloquently advocated by Malinowski. See his article on "Anthropology" in the Thirteenth Edition of the *Encyclopedia Britannica*.

Factors in the Cultural Process

As Thomas points out, three very important factors come into this process of collective learning which we call cultural evolution: (1) the presence of extraordinary individuals in the group, (2) the level of the culture of the group, and (3) the character of the ideas which are in circulation in the group. Many theories of social and cultural evolution have not made place for the exceptional individual. A theory in terms of a process of collective learning must do so. Some individuals have more power of attention, imagination, and invention than other individuals. The group which possesses men of these superior mental traits has an advantage. The "great man" may understand a crisis and see the necessary means which must be taken to meet it much better than the run of ordinary men. The inventive genius is perhaps in part a product of biological variation, but the next two factors which we shall mention have also much to do with his appearance. In any event, it is obvious that the group which has minds of exceptional power of attention and invention is in a position to profit by the leadership of such men. In one sense, cultural development is a matter of leadership.

The Level of Culture as a Factor

The level of culture of a group has, of course, much to do with the invention. If the culture is very low and the general knowledge of the group is small, even the best mind in the group may not be able to see its way through the crisis. Thus the culture of the group limits the power of invention. The individual mind at best cannot rise much above the general level of the culture of the group. The extraordinary individual must work largely with the material things and with the ideas which the life of his group affords him. It would not avail much for a great musical genius, say like Richard Wagner, to be born in a barbarous African tribe. The most that he could do would be to learn to beat the tom-tom a little better than his fellows or perhaps invent some new musical instrument of a simple character. The life and culture of the group thus furnish not only the problem, but the materials with which the inventor works. We must be careful, therefore, not to attribute too much at any given time to the exceptional individual.

The ideas, standards, and values prevalent in a group also have much to do with cultural development. This is, of course, but a part of the general cultural condition which we have just discussed in the last paragraph. If the ideas, standards, and values of a group are opposed to change, the group will not accept the new invention offered by the exceptional mind. If, for example, a religion such as ancestor worship prevails, which ordains that each generation should do as its fathers did, it should not be expected that a group which had such a religion would readily take up new inventions, and especially not those which have to do with the social order itself. Now the ideas, standards, and values of nearly all people are in some degree opposed to change. This may be due in part to the inertia of habit, but in part it is also due to the character of the ideas and values themselves. Traditional ideas and values are frequently so overrated that critical intelligence cannot be brought to bear upon them. In such a case, new ideas are diffused in the group with the greatest difficulty. It requires, as we sometimes say, a surgical operation to get a new idea into the minds of the members of such a group. As this has been the usual social and cultural condition in the past, we can readily understand why cultural progress has been slow among the mass of mankind.

Here, then, is the method of cultural evolution. Certain steps in the process stand out clearly: (1) The creation under the spur of some crisis of new patterns of action, by means of

The Method of Cultural Evolution

imagination and reasoning, utilizing the materials of the physical and social environment and to some extent also instinctive impulses and psychic accidents. These new patterns of action are usually formed by some individual in the group of exceptional attainments—a leader. (2) The diffusion of this new pattern of action throughout the group by means of imitation and communication, with ultimate acceptance by the group if it is found useful. The new pattern of action thus becomes a social or cultural pattern or trait. (3) Social patterns thus adopted become embodied in the social traditions of the group and so a part of its culture. All knowledge, beliefs, values, and standards which the group finds useful, or believes to be useful, are thus embodied in the group tradition. There is in the group, however, not one tradition, but many; as many as there are interests and arts of life. (4) The final step in the cultural process comes in the inculcation of the social tradition in the young through some system of social education. Primitive education threw its main stress on the moral or social side. Most education is, of course, informal until a high stage of civilization is reached. But all human groups have always maintained their culture through some sort of education, as there is no other possible way for culture to be maintained.

Trial and Error in Cultural Evolution

The perception that the method of culture is that of the learning process clears up at once many difficulties concerned with understanding cultural evolution. We see that the learning involved in the process of cultural development was necessarily through trial and error. Nature furnished no teacher to lead man up the rungs of the ladder of culture. He had to grope his way step by step through the process which we have already described as that of attention, the formation of a hypothesis or mental pattern for behavior, and attempt at control. It was a process of fumbling, and part of the time he succeeded, part of the time he failed. When he succeeded, he not only remembered his successful idea or invention, but was apt to endow it with magical virtue or supernatural sanction of some sort or other. This helped him to pass along his successful idea or pattern to other members of his group and to get it embodied in the group tradition. But, as we have already said, the new idea or invention did not become a part of culture until it was accepted by a group and made a part of its tradition.

Experiment in Cultural Evolution

To put it otherwise, the method of progress in culture has been *experimental* from the beginning. Man has always been an experimenter, and culture primitively was built up by experimentation not less than at the present time. We mean, of course, in an absolute sense, because the amount of experimentation seems to increase with the rise of the level of culture. Even yet the experimental, innovating type of mind is an exception. The mass of minds in every group are habit-bound; and on account of ignorance and other conditions in primitive groups, the minds of the individuals of such groups were, as we shall see, much more habit-bound than the minds of individuals in our present culture. While the process of the transmission of culture was largely the process of the transmission of habit, yet the development of culture depended upon experimentation, and in the cultural past this has meant largely a simple trial-and-error method.

Tradition in the Cultural Process

The culture of a group is never made up of one tradition, but of many. The development, transmission, and diffusion of traditions is necessarily accompanied by some confusion. We would not expect the several traditions of different groups to develop equally or evenly. As a matter of the most common observation, they do not. Some groups develop their technological tradition, some their religious tradition, some their political tradition. Moreover, when traditions are diffused from one group to another we should expect a great deal of confusion in such a process. We must expect, therefore, to find various culture traits in human groups combined in all sorts of ways. This has led some students of society to deny that it is possible to unravel the threads of their development. While it may not be possible to do so satisfactorily in all cases, yet we shall see, if we bear in mind the method of culture as a learning process, that it is possible to understand the steps in its development and even the process of diffusion and of combination of cultural traits.

Cultural Patterns

Cultural evolution thus takes place through the development and use by groups of "cultural patterns." These cultural patterns are ultimately patterns of individual behavior and even, we may say, mental patterns within individual minds. They may be either invented by the individual mind or acquired by communication and imitation from other individuals. Thus culture develops by the successive insertion of new patterns, which come either from individual invention or from borrowed patterns already created by other individuals or groups. When a pattern of a certain sort is launched, it is usually carried through until it is relatively perfected. Then some innovation in a new direction produces a pattern of another sort, which is developed in its turn.

"Sympodial" Evolution

Thus the process of cultural development is, as it were, through a series of "mutations." This perception Lester F. Ward anticipated when he said that social evolution was "sympodial." [4] He was thinking in terms of human achievement; and he saw that man's achievements form a series of inventions which take first one direction, then another. Thus in the making of stone implements the simplest chipped stone implements were made by percussion, until that method was carried as far as it would go; then came the making of stone implements by pressure and flaking; then, by grinding and polishing; then the hammering of native copper initiated the making of metal implements, which in turn started a whole new series of inventions. We see that this whole process is a process of

---

[4] *Pure Sociology,* Chap. V.

CHAP. III

learning in which new ideas or inventions appear from time to time. Consequently the curve of any particular line of cultural development resembles the curve of the individual in learning new patterns of behavior. There will be the same gradual rise in skillful performance or the perfecting of the pattern, with "plateaus," and with new starts when some new idea or perception comes into the mind. Thus the development of stone implements may be expressed by the following graph: [5]

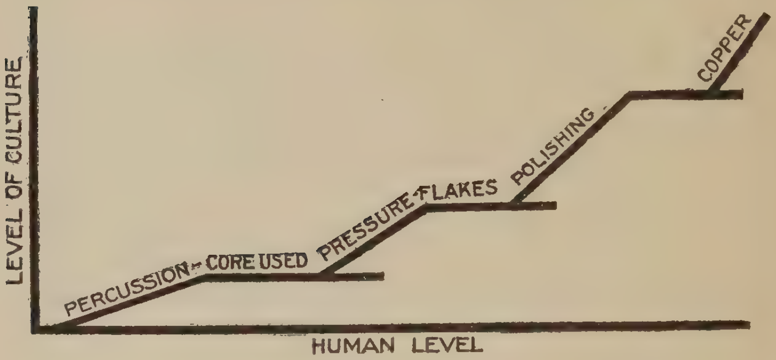

FIGURE 4

The Curve of the Development of Stone Tools

Originality and Diffusion

Bearing in mind that cultural evolution proceeds by a learning process, we shall have little difficulty in understanding the relation between originality and diffusion in the development of culture. The inventive, exceptional mind is rare, as we have already seen, and the mass of cultural patterns is acquired by copying the behavior of other individuals or groups. Thus there can be no doubt as to the great part which borrowing has played in the development of culture. Moreover, as the development of culture depends upon learning, the latest stages in a long process of cultural development may often be learned and thus diffused as easily as any of the intermediate stages. It was a long process from the primitive stick and stone, or the primitive bow and arrow, to the modern rifle. Nevertheless, peoples who have not yet even reached the bow and arrow may learn to use the modern rifle.

---

[5] The "plateaus" indicate the relative complete development of the particular process of manufacture; the new leads, the points of invention of a new process; the projections of the line beyond this point, the survival of the old method or tool.

The School of Diffusionists

These perceptions, that originality is rare and that borrowing is common, have led one school of anthropologists to the extreme position of explaining practically all cultural advance and development wholly through diffusion or borrowing. According to this school, it is difficult if not impossible for an invention to take place more than once. Therefore, the chief inventions in culture must each have been diffused from some single center. This theory is, however, extreme, and is not borne out by observation or history. Strikingly similar inventions are often made in widely separated places and at different times, as Ogburn has demonstrated. We have the right to explain the similarity of cultural traits by diffusion only when we can trace the actual process of borrowing, or when geographical or other contiguity renders borrowing probable. Without historical evidence we have no right to conclude with Professor Elliot-Smith that the practice of the ancient Peruvians in mummifying their dead was borrowed from the Egyptians. Especially is such a conclusion unwarranted when, as in this case, the two processes are quite dissimilar. Again, we have no right to conclude that the domestication of the llama in Peru was the copying of the pattern of domestication of the camel or some other animal in the Old World. To do so would be quite to forget that experimenting, innovating, creative tendency of man which has been everywhere manifest in his cultural development.

Parallels in Culture

The existence of parallels in the cultures of widely separated peoples and areas should be expected. To some extent these parallels may be due to borrowing when contacts can be traced. More often they seem to be due to similar inventions occurring in widely separated areas. Inasmuch as the materials for invention are frequently the same in different localities, and inasmuch as there is a fundamental unity of the human mind in all races and stages of development, we should expect such parallels to occur. When there is no contiguity or probability of contact between the two localities, and when there is only a rough parallelism between the cultural traits, it is safe to ascribe them to independent invention. Thus we find in different parts of the world, in widely separated areas, the practice of deforming the skull. This practice is carried out by different methods and in different ways. There is no reason to suppose that the practice of deforming the skull came from a single center. If we understand primitive notions regarding beauty, tribal marks, and the like, we are not surprised to find different peoples experimenting with this deformity. We must remember again that man is everywhere an experimenter and that there is scarcely anything in the way of bodily mutilation which he has not tried at one time or another.

Organized Diffusion

All this is paralleled by the fact that in our own civilization the same invention is often made by widely separated individuals working without knowledge of each other.[6] We are not trying to minimize, however, the part which diffusion has played and is playing in the development of culture. Obviously, within the period of recorded history peoples have taken many deliberate steps to diffuse their cultures to other peoples. This is not only a leading motive in the propagation of religious beliefs by missionaries of various religions, from those of primitive Buddhism and primitive Christianity to the present, but it is also a leading motive in the conquest of one people by another. In fact, the present cultures of the world are more or less in competition with one another at the present time in their attempts to spread over the earth by diffusion. This is not saying, however, that cultural development is not going on also at the present time through new inventions. In fact, both invention and diffusion are being used at the present time for the development of culture to an extent far beyond anything which we know of in the past. Contact and intercommunication between peoples is now world-wide, while human wants have multiplied, so that the stimulus to invention is much greater than in previous ages.

---

[6] W. F. Ogburn, *Social Change,* pp. 90-102, lists 148 inventions and discoveries made independently at nearly the same time by two or more persons, nearly all these cases being within the last three centuries.

Limits of Invention and Borrowing

The processes both of invention and of borrowing, however, seem to have certain limits in the process of cultural development. We have already noticed that an invention can take place only upon the basis of previous inventions or a general cultural level already attained. Invention is itself limited by the nature of the learning process. While an invention is a cultural mutation in one sense, from another point of view it is a step-by-step process. Borrowing, too, presupposes a certain preparation in the ideas and habits of an individual or a group. Until there is this preparation, cultural traits will not be borrowed with success. Thus the European peasants for a long time refused to make use of American farm machinery, probably because such machinery interfered with or disturbed the general run of their habits; and it is notorious that the missionaries of the higher religions have usually only halfway succeeded in diffusing their religions among more primitive peoples. Thus, we find, there must be a certain ripeness both before a cultural trait is produced and before it will be borrowed by a people. Both invention and borrowing are cumulative. Each achievement in culture furnishes a foundation for some higher achievement. The reason for this, as we have already pointed out, lies in the fact that cultural progress is a learning process and always necessitates certain steps, even though these may be in certain cases greatly abbreviated. It is hardly fair to say, therefore, that "a trait of culture is about as contagious as the measles." If this were so, we might expect the lower types of culture to disappear very rapidly; but if culture must be learned, and is not contagious, then it is reasonable to expect that the lower types of culture will disappear only gradually.

Survivals in Culture

We are now ready to understand "lags" or "survivals" in culture. If culture is a matter of habit, of tradition, and of learning, then we should expect that old cultural patterns would frequently continue to exist alongside of newer patterns. The new patterns are inventions which are taken up by individuals and groups who find them useful.[7] Oftentimes the new pattern of behavior is much more difficult to learn than the old pattern. Then again, the old pattern has habits of action already established on its side. It may also have on its side certain arrangements which have been brought about in the social order and certain vested interests of individuals and classes. Thus, because a new cultural trait has to be learned, and because there may be obstacles to adopting it into the physical and social environment, the progress of a new cultural trait, especially one which is complex and requires high intelligence in individuals, may be very slow. It is for this reason that old cultural patterns disappear very slowly, and that in the development of culture there is a wide overlapping of cultural patterns. For example, when stone implements began to be made by pressure and flaking, this did not put an end to the making of stone implements by percussion. They continued to be made and used, more or less, alongside of the superior stone implements made by pressure. Again, when stone implements began to be made by grinding and polishing, this did not stop the manufacture or use of stone implements made by chipping. After the use of metal implements was introduced, stone implements, both chipped and polished, continued to be used for centuries. Indeed, the use of stone implements disappeared from certain European peoples only within comparatively recent times.

---

[7] Of course, the old patterns are also found useful by certain groups. From this point of view there are no *mere* "survivals" in culture, as several anthropologists have recently insisted. "Survivals" must also be interpreted functionally.

Now, if there is such overlapping and survival in the case of physical tools, the efficiency of which can easily be tested by use, even more should we expect survivals and overlappings in the case of those elements of culture the efficiency or rationality of which is not so easily tested by experience. Therefore the family, government, morality, and religion are fields of culture which are especially apt to be filled with these survivals. It is not difficult even in the most highly civilized modern nations to find, at least in some elements of their population, moral and religious traditions apparently of the most primitive sort. This is ordinarily ascribed to "human nature," but a truer explanation is that the higher moral and religious beliefs are not easily learned or understood and that in the social environment itself there survive many obstacles to the practice of these higher beliefs. "Theism," for example, is a religious notion which has been advocated by the Christian Church fairly consistently for the last two thousand years. Yet a very little investigation will show that the masses among Christian peoples are still today far from the theistic conception in any strict sense.

This fact of survivals in culture is one thing which makes it impossible to believe that natural selection exercises any rigid control over culture. There are stages in cultural development, but they overlap and, in any highly cultured people, it has been thus far possible to find elements which represent all the stages of culture from savagery to present civilization. One of the problems of cultural development has always been to get rid of these "hang-overs" in culture, this lag in cultural traits which is found first in one element of a population, then in another, now in the material life and now on the spiritual side of culture.

Summary

To summarize: The essence of culture is invention. Cultural evolution reduces itself to the making of inventions and the diffusion and use of inventions. Though natural selection may play a part in cultural evolution, the evidence shows that it is a minor part. The method of cultural evolution is the successive insertion of new cultural patterns in the cultural tradition, each pattern tending to be perfected before a new lead or pattern is developed. Its form is therefore "sympodial." In this process both exceptional individuals and the general condition of the culture of the group play a part. Invention and culture are cumulative, but because the development of culture involves the learning process in both individuals and groups, its development is very uneven and is attended by many survivals.

SUGGESTED READINGS

Thomas, W. I.—*Source Book for Social Origins,* pp. 13-26.

Bartlett, F. C.—*Psychology and Primitive Culture,* Chaps. V-VII.

Boas, F.—*Handbook of American Indian Languages,* Introduction, pp. 59-73.

Goldenweiser, A. A.—*Early Civilization,* pp. 301-324.

Judd, C. H.—*The Psychology of Social Institutions,* Chap. X.

Kroeber, A. L.—*Anthropology,* Chaps. VIII, IX.

Malinowski, B.—"Anthropology," article in Thirteenth Edition of the *Encyclopedia Britannica,* Vol. I.

Ogburn, W. F.—*Social Change,* Parts II and III.

Sapir, E.—*Language,* Chap. I.

Tozzer, A. M.—*Social Origins and Social Continuities,* Chap. II.

Wissler, C.—*Man and Culture,* Chaps. VI-X.

CHAPTER IV

THEORIES OF THE CAUSES OF CULTURAL EVOLUTION[1]

CHAP. IV

The Causation of Cultural Evolution

WE have seen that cultural evolution reduces itself to the making of inventions and their diffusion and use by the mass of mankind. In one sense we have already discussed the causes of inventions and their diffusion. So many theories have, however, been propounded as to the causative factors in this process that we must discuss the whole matter again from a little different angle, taking up and criticizing the various theories propounded. As explanations of the causes of inventions and their diffusion, and so of culture, the following theories have been proposed:

The Geographic Theory

1. *The geographic-environment theory,* which claims that man's cultural development has been due to his adaptation to his geographic environment, and especially due to the selective influence of his environment. This theory has its main support in the view which once was held as to the part played by the external physical environment in organic evolution. Crudely stated, the theory was that each geographic area created or produced plant and animal types suited to its climatic and general geographic conditions. It required but a step further to reason that types of human behavior were produced in the same manner. The civilizations of men were like the fruits of trees, produced in accordance with climatic and other geographic conditions. Accordingly, the geographic environment was held

---

[1] The substance of this chapter appeared as an article on "Theories of Cultural Evolution" in the *American Journal of Sociology,* Vol. XXIII, pp. 779-800 (May, 1918).

to have played the main part in the origin and evolution of culture.

It is scarcely necessary to point out that the main basis for this theory has been destroyed with the rejection by biologists of the view that the dynamic force in organic evolution is the natural selection of the environment. But there are many other reasons why anthropologists and sociologists hold that the influence of the geographic environment is a minor factor in cultural evolution. "When we consider," says Goldenweiser, "that culture is essentially dynamic, while environment is static, our suspicions are at once aroused against any attempt to represent physical environment as a determinant of culture." He points out also that "as we pass from primitive to more civilized conditions, the dependence of the material culture of a group upon its physical environment becomes less and less conspicuous."[2] In the same spirit Lowie has said, "The environment enters into culture, not as a formative, but rather as an inert element, ready to be selected from and moulded"; and after citing many examples of cultural change, not correlated with environmental changes, and vice versa, he concludes, "The environment furnishes the builders of cultural structures with brick and mortar, but it does not furnish the architect's plan."[3]

This last quotation is peculiarly significant, as showing the attitude of the new anthropology and sociology. They do not deny that the geographic environment has its influence; but they do deny that it is creative. It furnishes materials and other conditions, but it does not furnish the mental pattern. The creative factor must be sought in man as an individual or in culture itself.

It may of course be objected that such a view is all very well for short periods of time, but that over long periods of time the geographic factor is truly determinative and creative; thus it may be said that if crises in climate or in other geographic conditions produced the selective agencies which created man, much more easily can they produce selective agencies which will create cultures. Biologists would probably demur to the characterization of selective agencies as ever "creative." Moreover, the fact that the brain of man was perfected by the end of Paleolithic times and equipped with the same powers and capacities as it now possesses would lead to the conclusion that crises in the geographic environment after all would play only the part of external stimuli, calling forth the energies of the higher centers of man's brain as an adaptive organ. It would be idle to ignore the influence of the geographic environment upon man's social life; but that influence is in the way of furnishing certain materials, conditions, and stimuli for cultural development rather than in the way of acting as a determinative, causative factor. This is well summed up by Lowie when he says: "(Geographical) environment cannot explain culture because the identical environment is consistent with distinct cultures; because cultural traits persist from inertia in an unfavorable environment; because they do not develop where they would be of distinct advantage to a people; and because they may even disappear where one would least expect it on geographical principles." [4]

---

[2] *American Journal of Sociology,* Vol. XXI, p. 630.

[3] *Culture and Ethnology,* pp. 63, 64.

We may reasonably conclude that the geographical interpretation of human history is one of the easiest hypotheses, but, from the standpoint of recent scientific research into culture, one of the most inadequate.

The Racial Theory

2. *The racial-biological theory,* which claims that culture production is a matter of racial heredity and of innate proclivities. According to the racialists, differences of blood, race, heredity, account for all, or for the principal differences in culture. The culture of a group is to be considered like the

---

[4] *Op. cit.*, p. 62. The whole chapter (III), in which this occurs, should be read.

flower or fruit of a plant, borne in its season. This theory is badly defined even by its most distinguished exponents, such as de Gobineau. It is closely related to the theory that culture is essentially due to the working of one or more special instincts in man which tend to produce culture, a theory which we shall discuss later. According to the racialists, the character of a culture is determined preponderantly if not wholly by the hereditary racial qualities of the group. Moreover, the continuance of a culture, it follows, will depend upon the continued purity of the racial blood; and the decline of a culture is due chiefly to racial intermixture. It is all a matter of the chemistry of racial germ plasms. The way a people act and think is dependent upon the structure of their nervous system, the racialists imply, and the structure of the nervous system is inborn. Therefore the pattern of culture is inborn. The people of a group will think the same as long as their blood remains the same and pure, and so the pattern of their culture will remain the same. If they become mixed, their like-mindedness will be destroyed and conflicting tendencies will be introduced into their culture. This, according to the racialists, explains much in the culture history of mankind. They usually conclude that only the white race is capable of producing a superior civilization, and that where white blood is purest (i.e., among the Nordics) there civilization will be highest.

Perhaps of all theories of culture proposed this has the least tangible evidence in its support. There is no evidence that culture varies with racial heredity, or is changed by the modification of heredity.[5] On the contrary, all the evidence seems to show that cultural changes are not accompanied by appreciable changes in racial heredity. Cultural changes may be very great, while the heredity of a group may not change at all. Race and heredity again are static, while culture is dynamic.

---

[5] Perhaps the most careful criticism of this theory which has yet appeared is to be found in Hankins, *The Racial Basis of Civilization* (1926).

At most, racially hereditary endowments may be, like geography, favorable conditions for cultural developments. Race seems to be a minor rather than a preponderant factor in culture.

The Psychic Accident Theory

3. *The psychic-accident-imitation theory,* according to which some accidental correlation of environmental factors and nervous conditions brings about a certain reaction in a certain individual, which is imitated by other members of the individual's group. The invention of fire making, for example, would be due to some such accident as striking a spark from a stone. The advantage of this accidental result of certain behavior would be observed, it would be imitated by other members of the group, and thus it would become a cultural trait.[6] Perhaps an even better illustration would be the first chipping of stone implements. It is said by those who adhere to the accident theory that the first stone tool made was made accidentally. The advantages of the tool were then perceived, and others like it were made by the process of copying. Thus one cultural trait after another sprang up by accident and was diffused by the imitation process.

It is this theory carried to the extreme which has led to the conclusion that in most cases a single place of origin is to be sought for each cultural trait, and even that there was one primitive center or spring of culture from which all the principal cultural traits were diffused. This is the view held by the German ethnologist Graebner,[7] and also by Professor G. Elliot-Smith in England.[8] Without entering into a detailed criticism of this well-known anthropological and sociological theory, it might be well to point out that we have too many distinct cultural areas in the world to fit in well with this conclusion. Many of these cultural areas appear to be entirely independent of one another, and even when we find parallels we have seen that we have no right to assume that they were diffused from a single center unless we can show some contiguity to have existed. We know too much about the nature of invention to argue that it occurs mainly through accident and that it is impossible to think of leading inventions as taking place more than once.

---

[6] Among sociologists this theory was first set forth by Tarde in his *Laws of Imitation* (1890). It was much later taken up by the anthropologists.

[7] *Methode der Ethnologie* (1911).

[8] See his *Migrations of Culture* (1914), and his monograph on "The Influence of Ancient Egyptian Civilization in the East and in America" (1916).

The main objection to this theory is that it assumes that the mind of man is relatively passive, and not an active organ of adaptation. Of course, the element of accident does frequently enter into the process of invention, but it cannot explain the entire process, because it does not take into consideration the active purposive behavior of the inventive individual. The theory fails to allow for the active adaptive processes of the human brain, but considers that organ as passive until some happy accident brings about an adjustment, which is then, for some mysterious reason, very actively copied by other brains. The dynamic factor manifestly is not in the accident. The accident serves only as a stimulus. It is, after all, the purposeful appropriation of this stimulus by some individual which leads to the invention. This was as true in primitive times as it is at present. Even the simplest stone implements bear evidence of having been invented with a distinctive pattern in the mind of the inventor.

The Habit Theory

4. The *habit-environment theory,* which holds that man is plastic and a creature of habit, always adjusting himself to his environment. This theory is not necessarily opposed to the theories which have just been outlined, but it emphasizes that the essential thing in the origin and development of culture is habituation to the environment. According to this theory the essential thing is that when an invention is made, by "psychic accident" or otherwise, a new environment is brought into existence, to which the organism must adapt itself by

habit. Each new element in material culture makes the environment more complex, and calls forth a more complex reaction on the part of the individuals who make up the cultural group. It is not so much adaptation to geographic environment, therefore, as it is adaptation to economic or technological environment which brings about cultural development. All evolution proceeds by adaptation to environment, these theories hold, and the norm of adaptation in the human species is the economic or technological environment. While the geographic environment is recognized in this theory, it is in the background, as compared with the technological environment. According to this theory, it is the stimulus which the environment affords and the habit established by reaction to the stimulus that are the two chief things which we need to take into account in the interpretation of cultural evolution.[9]

The habit-environment theory of cultural evolution is seen among economists and sociologists in the form of "economic determinism"; among anthropologists, however, it usually takes the form of making cultural development exclusively determined by antecedent cultural conditions. This is known as "cultural determinism" or "culturism." According to "culturism," culture produces culture,[10] or in other words, inventions.

The same objections apply to this theory as to the geographical theory of culture. For the technological environment, or material culture, is only a modification of the geographical, and any objections which would apply to the geographic-economic theory would apply to this form of environmentalism. All of the technological environment and general economic conditions are indispensable conditions of culture, but they are not the dynamic which produces it. While attempts have been made by the advocates of this theory to show that economic conditions determine brain processes, and so the activity of the brain as an organ of adaptation, they are not recognized as successful by leading psychologists.

---

[9] Herrick (*Brains of Rats and Men,* pp. 348, 350) incisively criticizes the habit theory thus: "The recent attempts of some psychologists to reduce human intelligence to assemblages of habits involve an enlargement of the usual connotation of the term 'habit' which has no justification in ordinary usage and which obscures certain very important characteristics of human behavior. The human type of plasticity of behavior is the very antithesis of habit; it is a new vital mode . . ."

[10] For a fair statement of cultural determinism as it is held by some anthropologists, see Lowie, *op. cit.,* Chap. IV.

If the habit-environment theory of culture were adequate, culture should with proper conditions make its appearance in the animal groups below man. The fundamental objection to the theory, in other words, is that it overlooks the differential factor in man's behavior which has produced culture and made human society something very different from animal association. Man does not differ from other animals simply by the fact that he has greater capacity for the acquirement of habits. To be sure, this greater capacity for habit formation which man shows has been an indispensable condition for the upbuilding of his culture; but this capacity itself goes back to the distinctive brain of man. To explain man's cultural evolution in terms of stimulus and habit is an inadequate scientific way of formulating the process, because it attempts to formulate what is distinctive in human behavior in terms of what is common to both man and the animals below him. The proper scientific procedure in such a case is rather to find the differential factor and to use it to explain the difference in the behavior phenomena.

The Special Instinct Theory

5. *The instinct-habit-environment theory,* which would find the differential factor in human behavior, and so in culture, in certain distinct human instincts, such as the instincts of workmanship, curiosity, and altruism. This is really a modification of the habit-environment theory of culture, which is to some extent a recognition of its weakness. It is found in those writers who would add to environment and habit some peculiar

instinctive or hereditary factor in man. The behavior of other animals seems to be due in many cases to the working of distinct instinctive tendencies. Take, for example, the behavior of a colony of beavers. Apparently, also, the human species has some peculiar instinctive tendencies. Wissler goes so far as to speak of a hereditary drive in man to produce culture. He says, "The individual's attitude toward culture is apparently an entirely innate affair"; and he adds, "While all culture is acquired, there must still be a complex of instincts to acquire and to participate in cultural activities; but only very rarely, if at all, specific instincts for the acquisition of a particular culture." [11]

Now there can hardly be any doubt that the instinctive tendencies of man do affect his cultural evolution. Such instinctive tendencies as constructiveness, curiosity, imitation, and altruism have probably had much to do with the cultural activities of man. Nevertheless, they seem to be conditions of the development of culture rather than causes. In the first place, it might be pointed out that such instincts as those mentioned are not peculiar to man. The instinct of workmanship, or constructiveness, for example, may with good reason be attributed to some of the lower animals, yet it does not result in the production of culture. Again, apes and monkeys have been commonly held to be endowed with instincts of curiosity and imitativeness, but these tendencies do not lead in them to the production of culture. Many animal species undoubtedly excel man in natural altruism, but this natural altruism again produces no culture. Finally, it may be pointed out that the recognition of distinctive instinctive tendencies in man in reality does not add any differential factor to man's behavior which is adequate to explain culture. Even if man has distinctive instincts, they could not give rise to a new type of social life and a new type of social evolution, because if man's social life were determined in the same way as the social life of animal groups, it could rise to no higher level. Now, the societies of animals are quite rigidly determined by heredity, variation, and environmental selection. *Instinct,* after all, is only a name for the hereditary element which we find in the behavior of any species. To give man two or three added instincts would not, accordingly, make his behavior very different from that of the brutes. The absence of culture among the brutes shows that instinct cannot be the differential factor which has made man's behavior cultural. Instinctive tendencies, like the geographical environment, furnish materials which may be used in the process of cultural development, but they are not the real causes of that development. If they were, it would be reasonable to expect that human invention would take one or two lines of development, as we see in the case of the beavers, rather than become all-round achievement. Heredity and instinct are static; culture is dynamic; therefore culture cannot result from a peculiar heredity or peculiar instinct. We need not stop to discuss further than we have already done the crude modifications of this theory found in the racial theory, which gives rise to such ill-founded conceits as ethnocentrism, racialism, and nationalism.

---

[11] *Science,* Vol. XLIII, p. 196. However, in *Man and Culture* (p. 265 ff.) Wissler apparently accepts a purely instinctivist theory of culture, when he says: "They [men] have a type of behavior as inevitably fixed as any social insect. . . , Man builds cultures because he cannot help it." One cannot help but remark that this is very far from the "historical theory of culture" which Dr. Wissler endorses elsewhere.

The Psycho-social Theory

6. *The psycho-social theory* of culture, which would explain culture *in terms of distinctively human traits.*[12] As soon as we so explain culture, we shall find all the other factors falling into their proper places. It would be foolish to deny

---

[12] "It is time," says Judd (*The Psychology of Social Institutions,* p. 331), "that the social sciences take the lead and refuse to be dominated by the sciences which derive their principles of explanation from a study of bees and ants and anthropoid apes."

the existence and the influence of these other factors, such as geographic conditions, technological environment, instincts, habits, and even "psychic accidents." But they give us no clear insight into the origin and development of culture, because they fail to point out the *differential* factor or factors which produced this new evolutional series. Now anthropologists are generally agreed that man's most distinctive human trait is his superior brain; and comparative psychologists hold that it is his superior capacity to learn. The larger and more highly organized brain of man is characterized by certain areas and organs which are entirely lacking in the brains of other animals. These are the higher intellectual centers, which have to do with the power of abstraction, or imagination and reason, and which evidently give to man his superior capacity to learn.[13] This larger and better developed brain of man is correlated with vocal organs which make it possible for him to symbolize his conceptual processes in articulate sounds. Man cannot only form mental patterns or concepts, but, by means of these vocal symbols, can communicate them to his fellow men. Thus these mental patterns or concepts can be diffused throughout a human group, so that the group as a whole can profit by the experience or intelligence of one individual. Man has not only a more highly organized brain, with new and more highly organized centers, such as the higher centers of the cortex and the "speech area," with a total nervous system much more complex than that of any other animal, but man has developed a more definite mechanism of interstimulation and response which establishes new and better means of communication. Thus a collective learning process becomes possible, which produces the culture of the group.

---

[13] The statement of Herrick as a neurologist is particularly to the point here. He says (*op. cit.*, p. 349): "That which is most characteristic of human cortical activity is just that flexibility or plasticity of organization which facilitates the formation of innumerable transient associational patterns which have no enduring quality. In advance of any overt act we 'think through' many provisional solutions of a problem of conduct, discarding one after another before the right course of overt action is found. These imaginary acts which are conceived only to be repeated are not habits . . . It is the capacity to do this sort of thing that most sharply differentiates men from rats. These powers of imagination, of 'free association,' of invention, of idealization, depend upon the fluidity of the intracortical organization and the preservation of its plasticity."

To use the old and more familiar terms, the power of abstract thought, or of forming concepts, and language, in the sense of articulate speech, are the foundations of human culture, because *they make it possible for groups to learn and to store up their learning.* These rest upon mutations in the brain and nervous structure of man, and they have given rise to functions which are the new and qualitatively distinct factors which have enabled man to produce culture and so to enter upon a new and distinct phase of social evolution.[14] Other factors have of course coöperated.

We may summarize briefly by saying that the psycho-social theory of culture would make culture depend upon the following differential factors in man: (1) the superior human brain, making possible the formation of concepts or mental patterns; (2) articulate speech, as the basis for the intercommunication and storage of these concepts; (3) a capacity for indefinite habit formation, resulting from (1) above, and prolonged immaturity; (4) erect posture, freeing the hands for making and using physical tools; (5) free hands, making possible the better manipulation of materials and the better representation of mental patterns: and (6) certain peculiar human instincts, such as constructiveness and curiosity, which coöperate with man's intelligence.

---

[14] Says Herrick (*Neurological Foundations of Animal Behavior,* pp. 305-6): "With the advent of man evolution took a new direction. . . With the expansion of the cortical associational mechanisms, progressive evolution of the remainder of the body apparently came to an end. . . Whether evolution of cortical texture is still in process is a controverted question. So-called social heredity has so far supplemented the physical or protoplasmic heredity of cerebral differentiation that it is impossible to separate the factors."

Man's Superior Intelligence

Taking the first of these factors, Wissler says, "We fail to discover any essential difference in the tools of early man and those now made in a rationalistic manner; hence we can do no more than assume that from the first they were mere inventions. There may be, however, very great differences in the intensity of rationalization between our ancestors and ourselves, but it is difficult to see how even the earlier cultures we know could have taken form without the same qualitative rationalizing power." [15] Again he says, "The forms and varieties of cultural remains seem to necessitate from the first the existence of the rationalizing power at its present level." [16] He concludes, "No mechanical movement complexes for tool making are innate, but there is in man's original nature a [rationalizing] mechanism that lays hold of things and thus supplies the basis for self-rationalization and for the acquisition of the great store of accumulated rationalizations of the race, or culture." [17] Professor Thomas also points out that "man has a peculiar power of mental calculation which the animals do not possess," [18] and that culture is "fundamentally connected with the operations of the human mind." [19]

Of course, what we have said applies not simply to tool making but to all other products of culture, such as art, science, morality, religion, and even language itself. All culture is not simply acquired habits, but habits acquired through man's superior intelligence. That is the reason why we do not find culture below the human level. All the achievements of man, from the making of the simplest physical tools to the highest forms of religion and morality, are in one sense products of man's imagination and reasoning. Culture production is a product of the rationalizing capacity of man, that is, of his capacity to solve problems through conceptual processes, or, as it were, through performing experiments in his mind.

---

[15] "Psychological and Historical Interpretations for Culture," *Science*, Vol. XLIII, p. 200.

[16] *Ibid.*, p. 199.

[17] *Ibid.*, p. 200.

[18] *Source Book for Social Origins*, p. 132.

[19] *Ibid.*, p. 130.

Verbal Language

But the power of abstraction could get no effective development in either the individual or the group without relatively definite means of intercommunication. Conceptual processes in the human mind seem to have developed *pari passu* with verbal language. Apparently verbal language is coeval with man, and as we have already pointed out, highly organized languages, if we may judge from the lowest existing savages, such as the Bushmen and the Fuegians, were developed long before much material culture was achieved. A superior method of intercommunication, articulate speech, was necessary for the development of culture, because verbal language is the vehicle of tradition, and the development of culture is essentially, as we have seen, the development of tradition. In another place the writer has said:[20]

"From the moment that articulate speech became possible a new type of social life was also possible—a type in which the interactions and interrelations between individuals became far more definite and far more complex than they are among the brutes. It became possible to communicate from individual to individual definite ideas and images which would aid in the mutual adaptation of the whole group. By means of articulate speech, superior skill or knowledge acquired by one individual, whether as a result of accident or of reflective thought, might be communicated to other members of his group. Thus the whole group might be enabled to profit by the experience and intelligence of one individual, and in this way the conduct of an entire group may be changed through the attainments of one fortunate or exceptionally intelligent individual. Nor would such attainments of a group be lost by the death of the generation in which they were learned. By articulate speech the knowledge and the patterns of the activity, or the adjustment, could be passed along from generation to generation, so that each succeeding generation could acquire the knowledge and skill found advantageous in the experience of past generations."

---

[20] *The Psychology of Human Society*, p. 61.

Culture Collective Learning

In other words, *culture in human society is a collective learning process produced by the interaction of individual minds.*[21] It is due not simply to man's higher intellectual development, but also to his superior power of intercommunication. We have every reason to believe that these two facts are intimately correlated. The higher development of man's brain is probably due to the fact that it has been developed as an organ of coadaptation with his fellow men. It was the use of the brain as an organ of coadaptation which fixed the mutation in the direction of centers for higher intellectual processes—processes connected with the use of verbal language. The brain of man and so the mind of man has been developed largely as an organ of intercommunication. If there ever existed a brain that had the power of forming concepts without superior means of communication, it could make no use of such a power. It would remain a mere latent capacity. Intercommunication develops the power of forming concepts in each individual after birth. Man is, of course, born with this capacity; but the superiority of man's brain depends upon the fact that it is a slowly developing organ, very imperfectly developed at birth and destined to get its full development only through reaction with a social environment. Hence it is clear that the higher intellectual development of man and the development of superior means of intercommunication have gone hand in hand; and it is also clear that these two developments are the foundations of his culture. Of course, back of them was the development of the appropriate structure in the brain and in the vocal cords, already emphasized as the two fundamental organic mutations upon which cultural evolution has depended.

---

[21] It is this fact, of course, together with the active pioneering nature of man, which accounts for the drive in culture. Men cannot help learning to some extent through the mere accumulation of experience. Culture is dynamic (potentially) because the process of learning is dynamic. We must agree with Wissler that it is "not a true picture of man" to represent that "not a single step in the development of culture is ever taken except under dire compulsion," or to imagine "our poor primitive ancestors driven to be men instead of mere apes, and proceeding whiningly and tearfully along a tortuous path, taking every opportunity to sneak out of line," even though our explanation is not the same. See *Man and Culture,* p. 277.

Culture a Product of Both Organic and Social Evolution

We now see why we have called this theory the psycho-social theory of culture. It emphasizes, on the one hand, that culture is connected with the differential traits of the human mind; on the other hand, that it is a product of group life. Thus it makes culture a product of both organic evolution and social evolution. Organic evolution furnishes the capacity for culture, but social evolution develops the capacity. The rationalizing capacity of man is, of course, a part of his original nature; but this capacity receives its development in man's social life and normally functions with reference to that life. It is not simply the formation of abstract ideas or mental patterns, but even more their intercommunication, which is significant for the development of culture. Hence, a careful examination of human society shows that the development of culture or of civilization keeps pace with the development of intercommunication. Intercommunication enables stimulations, ideas, and inventions to be spread as wide as human society. In one sense the whole evolution of culture is an evolution of language as a means of the objective storing of knowledge, ideas, and standards.

The Psycho-social Theory Synthetic

The psycho-social theory of cultural evolution has the advantage of making possible an organic synthesis of other theories. It does not deny that crises in the physical environment, other material conditions, "psychic accidents," imitation, and habituation have all played a part in the development of culture; but by presenting that development as "a collective learning process," it finds the proper place for the part played in the process by crises in the environment, accidental adjustments, contacts between cultures, and above all by habituation. All of these, it finds, are stimuli, methods, or materials for the learning process in human groups which we call the development of culture. All, moreover, are subordinate to the rationalizing processes of the human brain as an active adaptive organ and to intercommunication as the means of socializing these among the members of a group.

It finds that the whole biological constitution of man as created by organic evolution has coöperated with man's superior brain and superior powers of intercommunication to create human culture. For example, man's prolonged immaturity is a biological trait of the greatest significance for the understanding of cultural evolution. A prolonged period of immaturity means plasticity in the individual and in the group; thus it lays the basis for education and for social control through educative processes. It forms the basis for greater control by the group over the habits of the individual. It gives the intellectual elements which we have emphasized—ideas, ideals, and standards—their opportunity to modify the life of the individual. Thus, prolonged immaturity means a possibility of indefinite habit formation and a social life which is modifiable. Moreover, through the fact that this prolonged immaturity of the individual is a period of trial and error, of experimenting and testing, old ideas and habits of groups may get rejected and new ones may be discovered. Thus the prolonged immaturity of the individual has made possible not only the passing along to him of the habits and traditions of his group but also changes in those habits and traditions. It is safe to conclude that culture in all of its forms, whether tool making, language, art, religion, morality, or government, has as its organic basis of transmission and development the long physical and social infancy of the human individual.

The erect attitude and consequent free hands of man are a part of his biological constitution which are necessary for the understanding of the origin and development of his culture. We can scarcely imagine what cultural evolution would have been like without man's erect attitude and free hands; for these have been indispensable for the making and use of physical tools, as we know them. These physical attributes of man have been perhaps overstressed by some writers; but there can be no doubt that the development of the brain, and especially of the intelligence, has been closely correlated with the development and use of the hand. The superiority of the human brain, we have seen, is a development which comes through use. The use of the hand in the making and manipulation of tools implies the use of the brain. Consequently the use of the hand has reacted upon the development of the brain and has been one of the foundations of cultural evolution.

Theory Applicable to All Phases of Culture

The theory of cultural evolution which we have presented is that *it is a process of active adaptation on the part of individuals and groups, carried on by the human brain as an active adaptive organ and by means of intercommunication among the members of human groups.* If this theory of cultural evolution is correct, it should apply to any phase of culture. Let us take industry as an example. The first tools were invented, so far as we can discover, in a rationalistic manner, that is, through imagination and reason. The knowledge and skill which were used in making them were handed on to other individuals in the same family or neighborhood group. This would require relatively definite means of intercommunication if the level of skill in the making of the tool were to be kept up. Thus continuity in cultural development was made possible, while at the same time any improvement in making any tool could be taken up into the social tradition of the group and preserved. Moreover, after experience with certain types of tools, intercommunication among the members of the group would lead to the rationalistic selection of some tools and to the rejection of others. Thus gradually a tradition regarding skill and knowledge concerning the making of tools would become established in a group, a tradition which was constantly growing by increments received from especially well-endowed or experienced individual minds. In the same way traditions in the artistic, religious, moral, and governmental lines were developed; for, as we have already pointed out, the culture of every human group consists of a number of separate, yet related and interacting, growing traditions with their corresponding practices or customs.

Effects of Individual Differences

This theory leaves ample room for the operation of original individual differences among the members of a group. If culture is a growing tradition, receiving increments every now and again from the special endowments and peculiar experiences of individuals, then culture is not a "closed circle," but there is room in it for the variant individual and his invention. If the growth of culture is a process of learning, then its modifications are primarily modifications made in the minds of learning individuals. The native aptitudes of the individual and his peculiar individual experiences both count in the modifications of culture. Both may lead to new inventions, to new cultural patterns, which become diffused through large groups. This could not take place, however, if there were not intercommunication of a very definite sort in human groups and more or less rational selection through discussion by the group of the cultural modifications initiated by the originality of individuals. In animal groups, on the other hand, individual variations in the way of more intelligent adaptation count for little or nothing, because there is no definite form of intercommunication. Intelligent adaptation, if it counts in the animal world below man, can count only through natural selection, since animal communities have no means or agency of rational selection by which they can make available for the group as a whole an advantageous variation in behavior on the part of any of their members. Such variation in human groups, however, may produce speedy modification in the behavior of the whole group, for the simple reason that definite means of communication make the learning process one which may be participated in by the group as a whole.

No Uniform Social Evolution

This theory of culture leaves no basis for what we may call the sociological superstition of a unified and simple social evolution which takes place upon a single basis. Culture, we see, consists of a number of growing traditions, each concerning a different phase of the life-process. We have, for example, the technological tradition, which may and does grow more or less independently of other traditions. Thus there can be a very high development of tool making with apparently little development of the artistic tradition, or of the fine arts. The Neolithic inhabitants of Europe had highly perfected stone tools, but apparently little or no fine art. On the other hand, the upper Paleolithic men had much more imperfect stone tools, but more highly developed art.

As we have already pointed out, this makes the cultural classification of human groups difficult. Yet even this illustration shows clearly that certain developments in culture necessarily depend upon certain other developments. Unless Paleolithic man had reached a certain point in the development of his technology, it is manifest that he could not have had the tools and means for the development of his art. To expect the various traditions which enter into culture always to keep step with each other, however, is expecting something which is quite contrary to the fact. When we examine the facts of anthropology and of recorded history, we find as a rule that each age and each people specialized more or less in developing certain phases of culture, sometimes at the expense of other phases. Now it is the industrial tradition, now the religious, now the artistic, now the military and governmental which are successively developed by various peoples. To be sure, there has to be a certain harmony and congruence among the differing traditions which make up the culture of a given people; but the variations permissible are still very wide. The anthropologist is not disturbed because he finds artistic savages, cultured cannibals, and philosophical barbarians, since this is in accord with the nature of culture as a learning process. Because the people pay attention to one line of activity there is apt to be a lag in other lines of activity. When a people specialize in developing one line of culture, they have less energy left for other lines. If, however, cultural evolution continues, the development of any one line of cultural activity, whether industrial, religious, or political, is bound to react in time upon the development of other lines, since the life of the group is, after all, interdependent in all of its parts. Yet it is relatively rare in the history of culture that we find such thoroughgoing consistency as was found, for example, in the social life of the Eskimos before the whites intruded upon them. The cultural life of most human groups, for the reason which we have mentioned and also because of the borrowing of cultural traits of one group by another, is apt to be made up of more or less conflicting, or at least not completely harmonized, traditions or patterns; and this seems to be more true the more advanced the culture of a group becomes.

The psycho-social theory of cultural evolution which we have outlined is as applicable to recorded history and even to present developments in our civilization as it is to the evolution of the cultures of pre-literate peoples. It is thus entirely consistent with the historical conception of culture.[22] According to this view, the culture of a people like the Eskimos grew up through the same processes as the culture of a historical people like the English. *To understand culture, therefore, we do not need necessarily to look for the manner of its working*

---

[22] Indeed, a happier name for it might be the historico-psychological theory of culture.

CHAP. IV

in the life of "nature peoples"; we shall discover essentially the same factors at work in the life of all peoples. It is only that, in simple pre-literate groups, some of these factors and processes stand out more clearly than in the complex life of the civilized peoples of the present. But we shall find that instinct and reasoning, habit and environment, accident and imitation, invention and intercommunication, have played qualitatively, if not quantitatively, the same part in the culture of all peoples. If this is true, we see the absurdity of contrasting the historical and psychological conceptions of culture. We cannot understand historical processes apart from psychology; on the other hand, we cannot understand the mental processes which we find in human groups apart from the history of these groups.

Summary

Cultural development, we have said, is of the nature of a collective learning process, and hence we must understand human psychology in order to comprehend it; but this very characterization implies that culture is an accumulation, since we learn by accumulating experience. Our theory of culture cannot be purely psychological, for the simple reason that culture is a social as well as a psychological phenomenon. However, a theory of culture that is merely historical would fall short of complete scientific analysis, since to understand historical processes we must understand instinct and reasoning, habit and environment, accident and imitation, and all the other essential operations of the human mind. *A scientific theory of culture must be, therefore, historico-psychological or psycho-social;* and to perceive that it is *a collective learning process* gives at once a clue to its direction and possible goal.

SUGGESTED READINGS

WISSLER, C.—*Man and Culture,* Chaps. XII, XIII, XV.
BERNARD, L. L.—*Introduction to Social Psychology,* Chaps. V, VI.
ELLWOOD, C. A.—*The Psychology of Human Society,* Chap. XIV.
GOLDENWEISER, A. A.—*Early Civilization,* pp. 292-301.

Hankins, F. H.—*The Racial Basis of Civilization,* Chaps. I-V.
Kroeber, A. L.—*Anthropology,* Chap. VII.
Lowie, R. H.—*Culture and Ethnology,* Chaps. I-IV.
Thomas, W. I.—*Source Book for Social Origins,* pp. 29-74; 130-133.
Thomas, F.—*The Environmental Basis of Society,* Chap. XI.
Wissler, C.—*The American Indian,* Second Edition, Chap. XX.

CHAPTER V

PRIMITIVE CONCEPTS AND THE ORIGIN OF CULTURAL PATTERNS

CHAP. V

WE have seen that cultural evolution takes place through the invention and use by groups of what we may call "pattern ideas." These become embodied in the group tradition and objectified in language, tools, and institutions. They thus become cultural patterns. Any given culture or civilization is really a great complex of pattern ideas or cultural patterns which dominate the behavior of the members of that cultural group. We have seen in a general way what the process of originating new cultural patterns is like; but we shall need to study this process more concretely in order to understand the origin and development of the patterns of human culture in general. We shall need to combine the psychological method and the historical method to understand the origin of the patterns of culture.

The Primitive Mind and Its Concepts

First of all, we shall need to understand what has been called the primitive mind and its concepts. We have given up the idea that the mind of the very first men was fundamentally different in its powers from our own. Still we know also that it was very different if we take *mind* in the concrete sense as the sum of the thoughts, feelings, and values of a particular individual or group. For *the mind in this sense represents an accumulation* and is an outcome of long experience on the part of the individual or the group. At the very beginning of human history there could have been no such accumulation of experience. In order to accumulate experience, groups must possess verbal language or articulate speech; and it is generally agreed that human history in the strict sense did not begin until man acquired his powers of speech. Therefore, the very earliest human groups could have had no accumulation of knowledge or experience. Tradition had not begun, or at least had not been established. There was, therefore, no culture. In this sense, the mind of primitive man must have been like the mind of a child. It was a mind without accumulated experience, or a *pre-experiential mind.* More strictly, perhaps, we should call it a "pre-traditional mind." What we mean is clear. It was a mind that had everything to learn, and its only guides were natural impulses, the situation of the moment, and the capacities to feel and think. There must have been a real parallelism between such a mind and the mind of the brute, as well as that of the child; indeed, the mind of the brute had been left behind only in the sense that a new mind, with human capacity for learning, had come upon the stage.

A Pre-traditional Mind

A Pre-scientific Mind

Science is the accumulation of tested knowledge. There could have been no such accumulation at the very beginning of human history, and consequently there could have been no science. Hence the mind of primitive man was *pre-scientific.* It had no tested knowledge, and therefore could make no judgments upon the basis of tested knowledge. Its judgments had to be reached upon the basis of impulse, feeling, imagination, and only the faintest beginnings of controlled reasoning. This is only saying in effect what we have already said when we called the earliest human mind "pre-experiential."

A Pre-logical Mind

The earliest men had no knowledge of thinking processes or of correct ways of thinking. They had no critical ability, because such ability comes only from long experience and reflection upon the methods of thought. The primitive mind was, therefore, uncritical or credulous. It had no critical intelligence, and therefore we may call it *pre-logical* in the sense that it did not know as yet how to criticize or control its own thought processes. As logic is itself a science based upon the knowledge of thought processes, when we called the primitive mind "pre-scientific" we had already said that it was pre-logical in the sense that it had no knowledge of the science of logic. If logical thought processes were hereditary and organic in man, there would be no need of establishing a science of logic; but they are not hereditary, and so we have to learn slowly how to control and criticize our thought processes. This primitive man had not done, and in this sense his mind was pre-logical.

Qualitatively the Same as Our Mind

These facts were first pointed out by Professor Lévy-Bruhl, who held that the mind differed so much in its different stages of development that we must consider the primitive mind as being absolutely different from our own. This is an extreme view which is not justified.[1] The content of the mind of civilized man is, however, largely an acquirement which has come from the accumulation of culture. The mind of primitive man, like the mind of the child, had none of this accumulated culture, and in this respect it differed greatly from our own. *It had everything yet to learn.* It had, however, qualitatively the same powers and capacities, so far as we can judge, as our own minds. If it had not had these, it would never have developed into the present human mind. The difference between the primitive mind and our own lies, therefore, in the fact that we have a store of accumulated knowledge and of traditions to guide our responses to stimuli and to control our behavior, while there were no such traditions or accumulated knowledge

---

[1] See *Les fonctions mentales dans les sociétés inférieures, première partie;* also *Primitive Mentality*, pp. 29-33. Lévy-Bruhl even goes so far as to say that the primitive mind "refrains from reasoning and reflecting," but this is a mistake.

Primitive Credulity

for the earliest men. When an idea came into their minds, they had no means of criticizing it, and they acted upon it, often because there were no competing ideas to command their attention. To us, therefore, the primitive mind seems suggestible, credulous, of the sort that has been called the "hair-trigger mind."

We must remember that this type of mind is in some degree fairly common yet among the masses of mankind. This is in accord with what we said about the overlapping of stages of cultural development. There are still some individuals even among the most civilized peoples who have but a very slight store of accumulated knowledge and whose minds are so devoid of competing ideas that they act upon one idea because of the very absence of other ideas. Man is still a learner, and he develops his culture still through the learning process. At the beginning he had everything to learn, and while much progress has been made, *we are still hardly started in cultural development.* We should not, therefore, have much difficulty in understanding the primitive mind and its concepts and in seeing how primitive patterns of action originated.

Primitive Beliefs

Professor Todd has pointed out that the primitive mind seems to have been characterized by three beliefs: (1) that all things are possible; (2) that all things change; and (3) that all things are related.[2] To the childish mind of early man it seemed that all things were possible, because he did not understand the limits of nature and of experience. To him the world was a sort of "Alice in Wonderland" world. The wonders of the world, moreover, tended to confirm this belief that all things are possible. Only gradually does experience teach us the limited possibilities of life and of our world. Life resolves itself into a process of learning reality, but the primitive mind had not enough critical intelligence to distinguish its own imagination from reality. Even yet we have only partly learned to do this.

---

[2] "Primitive Notions of the Self," in the *American Journal of Psychology,* Vol. XXVII, pp. 171-202 (April, 1916).

Because the primitive mind believed that all things were possible, it believed that all things changed in most mysterious ways. Of course, all things do change, but not in the way that the child mind of primitive man supposed. It takes time and critical intelligence to discover that the changes of nature follow certain definite laws, that changes are possible only under certain conditions, and that changes take place only in certain directions. Because the primitive mind did not know these laws of change, its ideas seem often very irrational to us, as when it believes that animals turn into men or that men turn into animals.

The primitive belief that all things are related in mysterious ways seems also very irrational to us. It is the foundation of primitive magic and is a part of primitive religious belief. It is of course true that everything in our universe is related; but the relationship is not as the primitive mind conceived. A stone or a stick is related to man, due to the fact that they are parts of the same universe. Science can nearly make out what this relation is; but to the primitive mind the relation was imaginative, and allowed for all sorts of influences which we would now call superstitions. Very gradually man learned the true relationships of things and the laws governing these relationships. Through trial and error he establishes the fact that some relations are real and that others are merely the product of his imagination. Gradually he learns to eliminate his errors and to store up his tested knowledge in his social traditions. As we have already seen, the growth of culture has been from one point of view an elimination of error. However, man did have to have certain patterns of action which were reliable from the beginning. These were furnished him by his natural impulses and by the perception of certain easily observed and understood relations in nature.

The Origin of Cultural Patterns

We are now prepared to consider the sources of man's patterns of action or the origin of his cultural patterns. By this we do not mean the cause of his inventions, but rather the way in which general pattern ideas have grown up in human activities. Nature furnishes man with inborn generalized patterns for the execution of the fundamental activities connected with nutrition, reproduction, and defense. These are the natural impulses, or so-called instinctive tendencies. In man they are simply more or less blurred general tendencies. However, within them may be found the source and origin of many of man's more fundamental patterns of action. Moreover, physiological needs and impulses may give rise to much remote behavior (therefore, to many remote patterns of action) aside from the immediate results perceived. Of course, the remote and highly specialized patterns of action are the result of many other factors than inborn impulses, although inborn impulses may furnish the basis for the development and be one factor concerned in the origin of such patterns.

Physical Nature

The physical environment is another source of patterns of action, and so of cultural patterns. Certain social thinkers are fond of taking everything which man does back to suggestions in physical nature. There can be no doubt that the materials and conditions in physical nature do suggest certain patterns of action to the mind of man. The behavior of plants and animals must of course be included when we consider this source of culture patterns. Perhaps we should include here also the so-called "psychic accidents" which we have already considered in a previous chapter. If, for example, primitive man saw the lightning strike a tree, that might give him the idea of kindling a fire. Most of the accidents which become patterns of action are, however, due to the combination of natural impulses and environmental conditions.

Primitive Group Life

A third source of cultural patterns is to be found in the primitive group life which man had, so to speak, even before he was human. The primary groups, such as the family and the neighborhood, which sprang up primitively to satisfy human needs, have furnished many of the patterns for human institutions. We shall have occasion to refer to this source of cultural patterns frequently.

Primitive Occupations

Finally, it has been pointed out that primitive occupations probably furnished the principal social and cultural patterns of primitive man. If we understand that back of these occupational activities were the natural impulses of man and the materials and conditions of his physical environment, there can be little objection to this way of looking at the matter. Professor John Dewey has stated the argument as follows:[3]

> "We must recognize that mind has a pattern, a scheme of arrangement in its constituent elements, and that it is the business of a serious comparative psychology to exhibit these patterns, forms, or types in detail. . . . If we search in any social group for the special functions to which mind is thus relative, occupations at once suggest themselves. Occupations determine the fundamental modes of activity, and hence control the formation and use of habits. These habits, in turn, are something more than practical and overt. 'Apperceptive masses' and associated tracts of necessity conform to the dominant activities. The occupations determine the chief modes of satisfaction, the standards of success and failure. Hence they furnish the working classifications and definitions of value; they control the desire processes. Moreover, they decide the sets of objects and relations that are important, and thereby provide the content or material of attention, and the qualities that are interestingly signifi-

---

[3] "Interpretation of the Savage Mind" in the *Psychological Review,* Vol. IX (1896), pp. 19-20; quoted also by Judd, *The Psychology of Social Institutions,* pp. 69-70.

cant. The directions given to mental life thereby extend to emotional and intellectual characteristics. So fundamental and pervasive is the group of occupational activities that is affords the scheme or pattern of the structural organization of mental traits. Occupations integrate special elements into a functioning whole.

"Because the hunting life differs from, say, the agricultural, in the sort of satisfactions and ends it furnishes, in the objects to which it requires attention, in the problems it sets for reflection and deliberation, as well as in the psychophysic coördinations it stimulates and selects, we may as well speak, and without metaphor, of the hunting psychosis or mental type. And so of the pastoral, the military, the trading, the manually productive (or manufacturing) occupations, and so on. . . If a controlling influence of this sort can be made out—if it can be shown that art, war, marriage, etc., tend to be psychologically assimilated to the pattern developed in the hunting vocation, we shall thereby get an important method for the interpretation of social institutions and cultural resources—a psychological method for sociology."

The Hunting Pattern

While we cannot, like Dewey, accept an unqualified occupational determinism of cultural patterns, yet, as he has insisted, this approach from the standpoint of primitive occupations casts more light on the primitive mind, primitive concepts, and the development of cultural patterns than any other approach. The advantage is that it is concrete. Professor Dewey points out that primitive man was a hunter, and that the occupation of hunting furnished not only most of the patterns for primitive culture, but even laid the basis for the cultural patterns of civilized man. In the process of the hunt, primitive man would obtain certain patterns of action, remembering both successes and failures. After a time, these patterns would form a complex of many patterns which as a whole would became "the hunting pattern."

The development would be from a state in which instinct played the major part to one in which habit and tradition formed the basis for action. A part of the hunting pattern would be the making of tools or weapons for the hunt, and so the technological pattern would be developed. Another part of the pattern would be the attitude of the hunter toward the animal, with the attention, control, and perhaps cruelty involved. In the hunt, man learned to train his attention, to control his emotion and his behavior, and to achieve success at any price. He learned the whole scale of predatory and fighting behavior; and according to Dewey, all the predatory occupations of man developed directly from the hunt, and even many non-predatory occupations. Many authors think that man first learned large-scale coöperation through the primitive hunt, and that until hunting arrived coöperation within human groups was very feebly developed. Hunting certainly furthered the development of coöperation and stimulated all the arts of life. Its pattern was especially transferred to the non-utilitarian or play activities of the primitive group, and even to modern amusements. Thus Dewey says, "The play of the emotions along the scale of want, effort, success, or failure is the very type, psychically speaking, of the drama. The breathless interest with which we hang upon the movements of play or novel are reflexes of the mental attitude evolved in the hunting vocation." Dewey adds that when primitive agriculture arrived and there was no longer need of hunting to obtain food, the men in the primitive community took up war to supply the excitements formerly furnished by the hunt. War is essentially man hunting. Dewey even goes so far as to suggest that modern business, with its chase after wealth, is a development from the primitive hunt; and even that modern scientific research is a hunt after truth.

If we grant all this, how did man ever develop anything else than this hunting pattern? One obvious reply is that hunting was not the only occupation of primitive life. Hunting sprang from the food winning process; but the reproductive process gave rise to another social activity and cultural pattern. Dewey notices merely in a footnote that the women of the community did not have the occupation of hunting but the occupation of caring for the children. At most, hunting was but the main occupation of half of the primitive community, namely, of the men. The other half of the primitive community had as their main occupation the care of the children.[4] Consequently, alongside of the hunting pattern there was growing up even in the earliest human communities another fundamental cultural pattern, which we may call the "child-care pattern," which had quite as much to do with the development of human coöperation as the hunting pattern, especially in the family and the neighborhood groups.

The Child-Care Pattern

The first activities along this line were based upon the natural impulses of parental care. The first acquired knowledge, however, concerning the care of the child was obtained through the trial-and-error method on the part of the mother. Gradually a tradition of child care was established and the child-care pattern became a part of the general cultural pattern of the family group. It should be noticed that this pattern includes more or less permanency of relationship between the parents and loyalty on the part of the father to the family group as a correlative of the important part played by him in furnishing food and shelter to the mother and child. Since the men of the group were out on the hunt a great part of the time, the care of the children necessitated the living of families in neighborhood groups; and thus the neighborhood pattern became included in the child-care pattern, though defense also enters here. For the proper care of children and for their protection it was necessary that the neighborhood as well as the family group should be peaceful and kindly toward its own members, and united toward outside aggression or danger. Due to the necessities of child care, in other words, the child-care pattern fostered the traditions of kindly, altruistic attitudes and peaceful demeanor within the primitive group. Since women possessed more largely the child-care interest, they played the main rôle in the development of the child-care pattern and all that went with it, and thus they became the main developers of the social patterns expressed by such terms as *altruism* and *love*.

---

[4] A somewhat similar view seems to be developed by Briffault in his monumental work *The Mothers,* which comes to hand just as this book is going to press. Briffault's work, however, abounds with questionable generalizations regarding the primitive family and sex relations.

The Two Patterns Interwoven

There is, of course, no way of separating entirely these two primitive patterns in their development. They are inextricably interwoven. For example, the activities connected with defense show both the hunting pattern and the child-care pattern. As soon as fighting occurred between two groups of human beings, however, the military pattern entered, and this may be considered a development from the hunting pattern. But in other ways defense included the protection of the child and so involved the child-care pattern.

While it may be difficult even theoretically to analyze the influence of these two primitive occupations, one developed mainly by the men, the other mainly by the women,[5] upon the total development of human culture, yet it is obvious that they have played and still play a very large part. It is probably true, as Dewey has in effect contended, that business, war, and many of the material occupations of life have in the main followed the hunting pattern; and therefore they tend to be predatory. On the other hand, intimate social life has followed in the main the pattern of the family group, which is dominated by the child-care pattern; and therefore it tends to be non-predatory, altruistic, and coöperative. On the material side of culture we are more apt to find cold calculation, brutality, exploitation, and other things which we regard as showing a spirit of ruthlessness. On the spiritual side of culture, however, we find more of a trend to emphasize sympathy, coöperation, and altruism.

---

[5] This is, of course, not to deny that men and women have apparently from the earliest times participated in the occupations of the other sex, in greater or less degree. Thus Wallis says (*An Introduction to Anthropology*, p. 129): "In Australia, it is the women who, by diving, obtain the large fresh-water lobsters or the shell-fish, who dig frogs out of the ground, or search for the witchetty grub. The more exciting part of the chase, the capture of the larger animals, falls to the men. The men have the more dramatic if more arduous life, the women have the humdrum lot of easier but less exciting tasks."

The Conflict of the Two Patterns

Apparently both the hunting pattern and the child-care pattern have played a fundamental part in the development of human culture. Through all the ages there has been more or less contest and conflict between these primitive patterns of behavior. They have often strangely intermingled, and we find them both manifesting themselves in the same social situations or institutions. Thus, for example, in the Middle Ages and even down to the Industrial Revolution in Europe, the child-care pattern obtained more largely in the material life (in family and community economy), while after the Industrial Revolution, in the national and world economy which grew up, the hunting pattern came more to the fore. In spiritual culture, especially in religion, the situation before and after the Industrial Revolution seems almost the reverse. In spite of these interminglings and confusions of the two patterns, it would not be unfair to say that on the whole our material civilization has had for its basis the hunting pattern, while our spiritual civilization has had for its basis the child-care pattern.

It is interesting also to note the relation of these patterns to behavior within the group, especially within primary groups, and to the behavior toward those outside of one's group. In

The Primary Group Pattern

the family and the neighborhood groups the standards of conduct seem to have been from the beginning those of sympathy, kindness, and mutual aid. In other words, the standards of conduct within these groups were dominated mainly by what we have called the child-care pattern. But the standards of conduct toward those outside of these groups were primitively those of distrust, hostility, and even hatred. Standards of conduct toward those outside of one's group, therefore, have tended to be dominated by what we have called the hunting pattern, because men outside of the narrow face-to-face groups of primitive times were regarded with such suspicion, distrust, and hostility that they tended to be treated like the animals hunted. This dualism in the patterns of conduct has run all through human history. It is at the basis of so-called group morality and also of what has been called "moral dualism." It is obvious that it persists more or less in our present social life. Primary groups have everywhere furnished men with one set of patterns for behavior, while the relations between groups have furnished them with another set of patterns almost of the opposite character.

Moral Dualism

The Universal Pattern

Closely connected with this question of the sources of the general patterns of our culture is the question whether all culture has a general or universal pattern. To some extent we have already conceded that human culture must have a general pattern. There are the fundamental life-processes of nutrition, reproduction, and defense which must give some sort of pattern to fundamental human activities. We have also proposed to divide culture itself into material culture and non-material or spiritual culture. The sociologists and anthropologists, however, have not been content with such a general scheme, but have sought a more detailed classification of human institutions and social behavior. It must be acknowledged that certain types of cultural behavior appear in every human group. Such, for example, are language, industry, art, religion, and perhaps government. This fact has led Dr. Clark Wissler to propose an elaborate scheme for the classification of cultural activities which he claims to be the "universal pattern" for the culture of every human group.[6] He says that the facts of culture may be comprehended under nine heads: (1) Speech, including writing; (2) Material Traits, including food habits, shelter, dress, tools, weapons, and industries; (3) Art; (4) Mythology and Scientific Knowledge; (5) Religious Practices; (6) Family and Social Systems: (7) Property; (8) Government; (9) War.

One is struck by the arbitrariness of this classification. In this case, the author tells us it is for the purpose of classifying museum material. But he puts it forth as the universal pattern of human culture. As such it must be severely criticized. In the first place, it is doubtful if culture has any fixed general pattern. Culture as a learning process is necessarily an *expanding* process. In its later stages phases may appear which are not evident in its early stages. Like life itself, culture is creative, and so transforms itself. It may have a fixed pattern in fundamentals, as we have already conceded, but not in details.

Again, one wonders at the correctness of a classification which places mythology and scientific knowledge under the same head.[7] They seem almost to be opposite, as mythology is based upon imagination, while scientific knowledge is based upon tested experience. Science, in order to be science, must be, in some degree, truth; but no such limitation attaches to mythology. Finally it is doubtful if war should be included in the general pattern or the fundamentals of culture. There have been many peoples who have existed without war, and, as we shall see, there is every reason to believe that war is a relatively late development in culture. Moreover, nearly everyone is humanitarian enough to hope for the gradual disappearance of war; but this classification seems to make it a fixed element in culture. Perhaps, if a general pattern of culture had been drawn up a few generations ago, slavery would have appeared as a fundamental part of the pattern of culture. But we now have no difficulty in seeing that that would have been a mistake, both historically and scientifically.

---

[6] *Man and Culture,* Chap. V.

[7] "Myth is not a form of primitive science," says Malinowski, "but an aspect of religion, magic, and morality." (*Encyclopedia Britannica,* Thirteenth Edition, Vol. I, p. 137.)

Summary The idea of a universal pattern of culture should consider man as a value-making machine as well as a tool-making one. But spiritual culture is far more difficult to classify than material culture. It includes the intangible aspects of cultural phenomena; yet these intangible aspects, ideas, or mental patterns are fundamental in culture. The spiritual element furnishes the basis for those modifications of the material environment which we call the material objects of culture. We must conclude, therefore, that culture is the process by which the spiritual element in man is gradually transforming not only the material environment, but man himself. It is truly a process of building a human world out of the materials furnished by physical nature, on the one hand, and by human nature as fashioned by organic evolution, on the other hand. Cultural evolution, like all evolution, is creative. It is a process in which "the less" becomes "the more." It is an expanding process starting with the materials furnished by organic evolution and the geographic environment, but building a human world toward a goal which we are only dimly beginning to perceive.

SUGGESTED READINGS

Dewey, J.—"Interpretation of Savage Mind" (in Thomas, *Source Book for Social Origins*, pp. 173-186).
Briffault, R. S.—*The Mothers*, Vol. I, Chap. IX.

BOAS, F.—*Mind of Primitive Man,* Chap. IV.
BOAS, F.—"The Growth of Indian Mythologies" (in Thomas, *Source Book for Social Origins,* pp. 303-315).
GOLDENWEISER, A. A.—*Early Civilization,* Chaps. XV, XVI.
JUDD, C. H.—*The Psychology of Social Institutions,* Chap. IV.
LÉVY-BRUHL, L.—*Primitive Mentality,* Chap. I.
TODD, A. J.—"Primitive Notions of the Self" in the *American Journal of Psychology,* Vol. XXVII, pp. 171-202.
WISSLER, C.—*Man and Culture,* Chap. V.

CHAPTER VI

THE EVOLUTION OF PHYSICAL TOOLS

CHAP. VI

The Simple Beginnings

JUST as all cultural activities of man might conceivably be traced back to very simple primitive occupations, such as the hunting on the part of the men and the child-care on the part of the women, so it is conceivable that all physical tools can be traced back to the stick and the stone. At any rate, it is hardly to be doubted that the first tools which man used were sticks and stones supplied by nature. At first such tools were unspecialized, but their use would naturally soon become varied in character, depending upon size, shape, and kind. Thus, thick sticks would be used for clubs; long, pointed sticks, for spears; while short, thin ones might be used for knives. Likewise, heavy stones would be used for hammering and beating; sharp stones, for scrapers and knives; while small, pointed stones might be used for awls, borers, or even spear heads. Very gradually from these simple beginnings the multitude of the elaborate tools, implements, and machines of our culture have been developed.

Doubtless man and man's precursor used natural objects such as sticks, stones, and shells, for tools for generations before attempting to make tools. The use of such objects as tools does not presuppose human intelligence. The monkeys and the apes use such objects as tools very frequently. But so far as we know, no monkey or ape *makes* tools. Even the so-called club of the gorilla seems not to have been fashioned but to have been simply a thick stick picked up or a limb broken off and molded into shape by use.

The First Physical Tools

Man, however, has been from the start a tool-making animal, because he has the power of forming concepts or mental patterns, and so of invention. The general process of invention has already been discussed. We have seen how it involves some crisis or emergency, attention to the factors in the situation, and the development of control over them through some new pattern of action. Man's physical tools are thus evidently modifications of his own behavior, and, so to speak, extensions of his body. The first physical tools were very simple and were probably made of wood, shell, or bone, and hence no traces of them have been found in geological strata. It is probable that many generations elapsed before man began to make stone tools. Not all stones are adapted for tool making, and especially not for chipping. Only flint, chert, quartz, obsidian, and a few other stones can be chipped. Even so, according to many authorities, the slight chipping of stones began in Europe as much as 200,000 or even 300,000 years ago. This is known as the Eolithic stage or period. Eoliths are, however, so difficult to distinguish from natural formations that we shall not attempt to use them in our discussion. It is only necessary for us to note that if the making of tools is a learning process, we have every reason to believe that it began with an Eolithic stage.

Stages of Development of Stone Tools

Leaving aside the Eolithic stage, we find in European Paleolithic stages clear evidence of the step-by-step process by which man has learned to make his physical tools. The earliest Paleolithic implements were made in a very crude manner by percussion or hammering, and the core, rather than the flake of the stone was used. They were rarely chipped all over, but usually only at one end or on one side. This stage is known usually as the Pre-Chellean. In the next stage, stone implements were still made by percussion, and the core was still used. Usually, however, they were chipped all over. The most common implement was the hand-axe (probably not mounted, as its name implies) though other crude implements were also made. This stage was known as the Chellean, and began in Europe apparently about 100,000 years ago. Some authorities think that Pre-Chellean and Chellean times lasted as much as 50,000 years. In the next stage, the Acheulean, considerable progress in the making of stone tools became evident, for they were made from the flakes as well as from the cores. These flakes were, moreover, "retouched," to bring their edges to a relatively sharp, even line. This retouching was done through lifting off tiny flakes from the edge of the stone implement by pressure. Chipping stone by pressure instead of by percussion had been discovered, and stone implements were now consequently better made and of a larger variety of forms, among them being spear points.

The use of stone implements made from flakes became prevalent in the next stage of development, the Moustierian, and the use of the core was discontinued. A large variety of stone implements made from flakes now appeared, but for some reason which we do not fully understand they were less well made than they were in the Acheulean period. Some think that this was due to the fact that the Moustierian epoch coincided with the Fourth Glacial epoch. Man was now driven to the caves, and the severity of the climate seems to have restricted his occupations and probably his intercommunication. It may be noted that some bone implements begin to occur in this epoch.

The next epoch, the Aurignacian, presents a break in the development of European stone implements, for the Cro-Magnon man came into Europe, bringing with him, probably from Asia, a new technology and a new culture. Stone implements were still made out of flakes, were carefully retouched, and were of a variety of forms. The chief dependence, however, seems to have been placed on implements of bone and ivory. In the next stage, the Solutrean, stone implements came back and were more elaborately and carefully chipped than ever. Beautiful, carefully chipped stone implements of the laurel leaf and willow leaf patterns now appeared. In fact, the relative perfection of the chipped stone implement had arrived. On the whole, no succeeding age has been able to chip stone implements better than the men of the Solutrean epoch did. They of course followed the lead of the Acheuleans in making use of flakes, of pressure, and of retouching. Their successors, the men of Magdalenian times, however, made little use of stone implements. Evidently the climate had changed again, and with the climate the mode of life. The men of Solutrean times seem to have been hunters, living in the open. The men of the Magdalenian epoch, on the other hand, became fishermen, living somewhat like our Eskimos of the present. The characteristic weapon which they developed was the harpoon, and this was best made from reindeer horn. They had, therefore, but little use for stone tools and did nothing to develop them. At the very end of the Paleolithic came the Azilian epoch, with its curious stone points, which may have been arrow points.

The Development of Invention

We see from this brief description how man's tools have developed in connection with his mode of life; how certain patterns have been started as the need for them arose, and later discontinued; how under certain conditions a pattern tends to be perfected. This relative perfection was noted in the chipped stone tool of Solutrean times. Another instance would have been the development of the harpoon in the Magdalenian epoch. The various phases of the Magdalenian epoch can indeed be distinguished by the development of the harpoon. It began with a single barb upon one side, then other barbs were added, and finally the harpoon with several barbs on both sides is found in late Magdalenian times. The

CHAP. VI

harpoon had been perfected. We see that with changes in climate and other conditions new crises arise, and new leads have to be found to meet them. In other words, a new invention takes place which, through the slow accumulation of experience, again tends to be perfected.

Polished Stone Tools

Such a new lead and new invention appeared in Neolithic times with the grinding and polishing of stone implements. Apparently the grinding was at first simply a supplementary process to sharpen implements which had been made mainly by chipping, as for example to sharpen the edge of a flint stone axe. But it was soon discovered that many stone implements could be made wholly in this way, and that many more varieties of stone could be used in making implements by grinding or polishing than by chipping. A whole new set of stone implements made by grinding or polishing therefore came into use in Neolithic times. But it should be noted that chipped stone implements continued to be used and, indeed, were often made as finely as they were in the Solutrean epoch. The polished stone implements simply furnished a new set of patterns and a larger variety of implements. With the polished stone implement in Europe came primitive agriculture, and this occupation called for a large variety of stone implements, some of which could not have been made by chipping.

The Copper and Bronze Ages

Among the "stones" which the men of Neolithic times in Europe tried to make into implements was native copper. This probably appealed to them as a very peculiar sort of stone which could be hammered into shape and then polished. The first copper implements followed very closely the shape of the stone implements, for men do not vary their patterns unless they find some need of doing so. But the copper implement had also another quality. It would melt, and the molten copper might run into various shapes. This discovery evidently led to experimentation with other stones which had a metallic luster similar to that of copper. The result was the invention of bronze. This invention did not take place in Europe, however, but in Egypt, where the general cultural development was far ahead of even that of southern Europe. Bronze is an alloy of copper and tin and sometimes other metals. The first bronze was a mixture of copper with many other metals. Gradually it was learned that the best bronze was made by an alloy of copper and tin in the proportion of 9.1 parts of copper to .9 parts of tin. Thus bronze was gradually perfected. At first the tools made of bronze were almost slavish imitations of stone tools, but gradually patterns adapted to the new material were developed. This shows how the materials with which man works may also influence his cultural patterns.

Iron and Steel Tools

In Egypt also began the smelting of iron. The use of iron almost necessarily came after the use of copper and bronze, at least in those regions where pure native copper may be found, for pure native iron scarcely exists, except occasionally in meteorites. The development of the iron tool required, therefore, the discovery or invention of smelting. Iron ores are abundant, and some of them are such as to suggest their metallic character. They smelt only at high temperatures and in the presence of oxygen and carbon. The charcoal of a wood fire would furnish the carbon. Experimentation probably led to the discovery of the art of smelting. With the production of metallic iron, a new lead was opened in the making of metallic tools. The iron tool, however, could not be perfected until various processes of hardening and tempering the iron were discovered. The great discovery along this line was, of course, the invention of steel through learning how to harden the iron by alloying it with carbon. Finally, in our own time scientific experiment has shown us how to harden steel still further by alloying it with tungsten or vanadium. Evidently the steel tool tended to be perfected. Possibly ahead of us lie still other leads to be discovered. Some generation yet to come may discover an alloy which is superior to our best steel, if not for tool making, then for the making of power machines.

We should note also that the power machine is a direct offshoot of the steel tool, for the power machine is essentially the combination of a tool and a source of power, such as steam or electricity. Upon the power machine rests our whole present industrial system, and so the most striking aspects of our material civilization. The advance of our material culture has now become largely a problem of perfecting our power machines.

The Process of Invention

We have now come far enough to stop and look back and see the whole process in the development of physical tools. We see that the process is a learning process, but that new needs and new materials change the trend of the development from time to time. Crises, attention, and new inventions give rise to new trends of development in endeavors to obtain control over situations. Thus, new leads are discovered. These are taken up and developed until relative perfection is reached. This was done with chipped stone implements, with polished stone, with bronze, and with iron and steel. It must be remembered, however, that the old pattern or method does not become extinct immediately, if it does so at all. Oftentimes the older method is the better for certain things, and it is retained for that reason. But another reason for retaining it is that the new method or pattern is usually more complex and more difficult to learn, and sometimes the materials for it are scarce. Thus, chipped stone implements continued to be used along with polished stone implements; stone implements continued to be used during the Bronze Age in Europe, and indeed down to relatively recent times; while bronze continued to be used largely long after iron and steel had arrived. This overlapping of cultural forms we shall find to exist in all phases of culture, not alone in physical tools. If we take the whole world into account, of course the overlapping is even more conspicuous. The American Indians remained in the Stone Age during the whole of the time that Europe was developing its Metal Ages—until, indeed, European culture was brought to them. But we are referring now to the overlapping of cultural patterns among a single people. It would seem that it takes some individuals in a cultural group a long time to unlearn old patterns. We might compare the unlearning of old patterns by society to the breaking of habits by the individual. We know that old habits tend to persist, and so also do old cultural patterns. They do so because they are kept alive, not only through habit and custom, but also through traditions, beliefs, vested interests, and sometimes peculiarities of social organization. The learning of new and better patterns of action is a difficult process, not only for individuals but also for groups. It means adjustment, and adjustment on a higher plane means effort.

The Similarity to the Process of Individual Learning

The conclusion which must be drawn from this study of the development of man's physical tools is, as we have already said, that it is a process of learning which proceeds in the group in the same way that the process of learning proceeds in the individual. An individual in learning anything new slowly masters a new pattern of action, then reaches a level of attainment which, however, he keeps only by constant practice; he starts afresh in his learning only when he discovers some new lead, which in turn he follows until he has mastered it; then the learning process reaches a plateau, so to speak, above which again the individual can rise only by discovering another new lead. It is exactly so in the culture of the group. The making of some new tool starts from a certain level with a new invention, gradually rises above that level as the new invention or pattern is perfected, then reaches a plateau, above which it rises only when some crisis leads to another new lead or invention, which in turn is carried as far as it will go, or to its relative perfection. Thus the graph for the development of a certain kind of tool, or of material culture in general, is exactly the same graph which we find in the learning process of the individual. It is, of course, subject to more interruptions and even to decline; but these are possible also in the individual's learning. We may, then, represent the development of physical tools by the following graph:

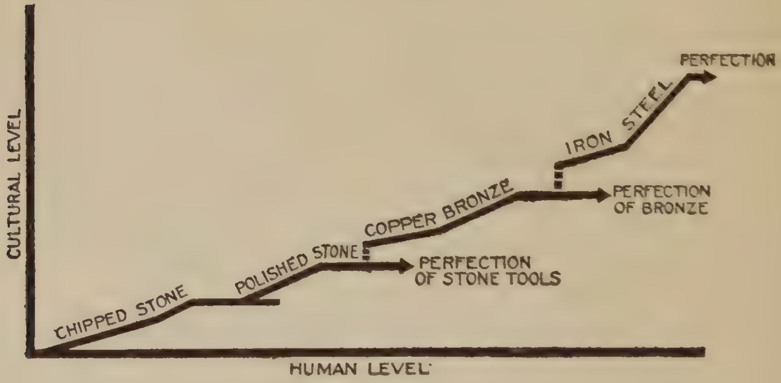

FIGURE 5
The Development of Physical Tools

The Curve of Tool Making

Another graph is possible, however, which will give us a larger vision of the whole process. It will be remembered that man started at the very beginning of cultural evolution without physical tools, and that during the long collecting and hunting stage he had only very few. Tools did not begin to multiply until primitive agriculture was reached. Even then, they multiplied slowly until man found ways of preserving his knowledge of physical nature in written symbols. That brought about the development of physical science, and physical science multiplied enormously man's physical tools. Looking ahead, however, we can see a time when the conquest of physical nature, so far as man is able to achieve it, is practically complete. Man will then have reached the relative perfection of his physical tools, and there will follow a long period in which he will enjoy them to develop his social life, and especially the spiritual side of his civilization. The curve which we now get is one which rises slowly until agriculture is reached, then mounts more rapidly and still more rapidly with the invention of writing, but finally reaches again a point from which there is only a slow ascent. In other words, our curve is now a parabola, with the thousands of years of savagery represented by the lower branch slowly rising, while the upper branch will represent the thousands of years ahead of us when man has relatively perfected his material civilization.

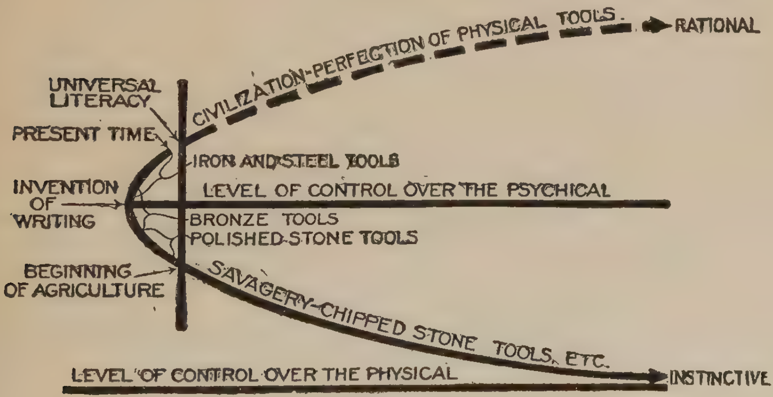

Figure 6
The Curve of Material Civilization

The question still remains whether these two graphs are typical of all phases of human culture. This question cannot be answered until we have examined the development of other phases of culture. Many irregularities will appear, but we hope to show that these irregularities can be explained, and that these two graphs do *roughly* represent the process of development of all human culture.

SUGGESTED READINGS

Mason, O. T.—*Origins of Invention,* pp. 33-82 (in Thomas, *Source Book for Social Origins*).

Goldenweiser, A. A.—*Early Civilization,* Chaps. VII, VIII.

Handbook of the American Indians, article on "Stonework" by Holmes.

Pitt-Rivers, A. L.-F.—*The Evolution of Culture,* pp. 57-82; 189-227 (in Thomas, *Source Book for Social Origins*).

Ratzel, F.—*History of Mankind,* Vol. I, pp. 76-84 (in Thomas, *Source Book for Social Origins*).

Tylor, E. B.—*Anthropology,* Chap. VIII.

Wissler, C.—*The American Indian,* Second Edition, Chaps. VII, VIII.

CHAPTER VII

THE DEVELOPMENT OF THE FOOD PROCESS AND ITS PATHOLOGIES

CHAP. VII

Culture a Control over the Food Process

THE food process includes not only the means which man uses to obtain food, but what man eats, the preparation of food, and even the way in which he eats it. This social process is, of course, closely connected with the fundamental physiological process of nutrition. Therefore it is closely linked to man's inherent constitution on the one hand, and to all human culture on the other hand. It includes things which we have already discussed, such as the development of the hunting pattern, at least in its earlier beginnings. The whole process of culture has been, in one of its aspects, a development of control over the food process; and the food process has inevitably reacted upon all phases of culture. We cannot understand the family, government, art, religion, or morals without a knowledge of the intimate connection of all of these phases of culture with the food process.

Food of Primitive Man

We are often told about the exceedingly scanty food supply of primitive man and how he was practically forced to eat everything which was edible. Thus we find that the Australian aborigines ate grubs, scorpions, snakes, toads, and other reptiles which seem to us objectionable as food. We are told similar facts regarding those North American Indians who lived in areas of less abundant food supply. There were other areas, of course, in which food supply was more abundant, especially certain tropical and semi-tropical regions. However, even in the tropics, as we have already pointed out, food supply was in many places far from abundant. It is safe to say that man has been always more or less confronted by starvation; and, of course, the crises occasioned by lack of food were much more frequent before man began to cultivate the soil than afterward, and much more frequent in barbarism than under civilization. We are told, however, that even in Europe there has been one famine on the average every seven years since the beginning of the Christian era. The problem of food supply has therefore always been a pressing problem with man, and a certain class of sociological thinkers among the population theorists seem to hold that the problem will inevitably become more pressing in the future than it has been in the past. The progress of man's material civilization, however, as we have just pointed out, has been a progress in control over food supply. From the general character of culture as a process of control we have good reason to believe that the scanty and inadequate food supply of the hunting stage will be balanced by relative perfection of control over food when the stage of true civilization has been fully entered upon. Thus again the curve of culture will take the form of a parabola with the disturbances in the adjustment of man and food taking place in that transitional stage between the beginning of agriculture and the diffusion of universal enlightenment.

Man Dependent upon Plant World for Food

So far as we know, man will always be dependent upon the vegetable world for the production of his main source of food supply, or in other words, upon agriculture. Synthetic chemistry may succeed in producing a few simple organic compounds in the chemical laboratory, such as sugar. Even if it does so, however, it is improbable that these compounds produced by synthetic chemistry can ever displace, or even be to any great extent substitutes for, the natural foods furnished to man, and to the animals which he eats, by the vegetable world; for these synthetic compounds would probably lack those elements of vitality which are known as "vitamines" and which are necessary for normal physiological development and functioning. Therefore, the process of culture which is concerned with the control over food largely coincides with the invention and development of agriculture. We shall consider the origin of agriculture in another chapter. Here we wish to consider rather the character of the food which man eats, and especially those deviations in his diet which we have come to consider abnormal.

Man's Experiments with Food

Before we can discuss intelligently the pathologies of the food process, we must see again why man has experimented with all sorts of foods. As we have seen, primitive man was constantly confronted by starvation and had to eat almost anything that he could lay his hands upon. The general theory of invention and discovery which we have outlined in previous chapters is, of course, illustrated here again. Crises in food supply led to careful observation of all possible sources of food supply, to experiment, and finally to various attempts to control food supply. It can scarcely be said that what man eats has been controlled by his instincts. Doubtless he has natural instincts for certain kinds of food, but the crises in food supply have forced him to experiment with all possible sources of food. What strikes one most forcibly in the food supply of all peoples is that there has gone on a wide range of more or less intelligent experiments to discover new sources of food. Probably man, in one sense, was always omnivorous, but this does not mean that his natural tastes or impulses led him to eat anything or everything; rather it means that necessity forced upon him experiments with various kinds of food, and gradually through experience he learned to get food from a great variety of sources. Some of these sources seem to us strange, repulsive, and abnormal.

Here, however, another remark is to be made; and that is, that food is largely a matter of habit and acquired taste, and that what seems to us a very strange or even abnormal appetite may not be so in fact. Our own culture may prevent us from judging the food habits of other peoples in a truly scientific way. Thus, Western peoples have in the past condemned the Chinese for eating rats and birds' nests.

Europeans have frequently condemned Oriental peoples for eating locusts and other insects, while the American Indians have had their diet censured for such foods as dog meat and snakes. We must remember, however, that many articles in our civilized diet seem equally strange and unnatural to other peoples.

Abnormal Deviations

Nevertheless, there are certain deviations from the diet which we need not hesitate to judge as abnormal because we have physiological standards upon which to base such a judgment. Such, for example, is the eating of various kinds of earth or clay. So far as we can discover, the eating of such substances was of no physiological utility and probably of considerable physiological harm. Here also we must put the use of certain semi-poisonous plants, especially those that furnish a narcotic effect, such as the hemp plant, the poppy, and the coca or cocaine plant. Some of the milder stimulants derived from plants of this group, like tea and coffee, have become regular staples of our civilized diet. They are usually taken with other forms of food, and have not such a marked detrimental physiological effect that we can classify them as clearly abnormal.

Here of course comes in the question of alcoholic beverages. Fermented alcoholic beverages have been known to practically all peoples since agriculture began to be practiced on any extensive scale. The production of such beverages was almost inevitable, owing to the accidental fermentation of fruits and vegetables kept as food. Practically all peoples that have reached the stage of barbarism know something of fermented alcoholic beverages and those peoples that have domesticated fruits usually have such beverages on an extensive scale. Alcoholic beverages seem to have been one of the incidental disadvantages which have come to men through the development of agriculture. Whether one decides that the use of such beverages is abnormal or not, their use has certainly played a great part in the production of pathological social conditions. This was evident even in Egypt three thousand years ago, if we can judge from the records on Egyptian monuments and the efforts then made to promote temperance. However, the worst effects of alcoholic beverages became evident after the invention of distilled liquors five or six centuries ago. Nothing could illustrate better an error in culture than the rise and prevalence of the use of the stronger alcoholic beverages, especially in the seventeenth, eighteenth, and nineteenth centuries. Men were so deluded that they even named alcohol *aqua vitae* or "water of life"; and the popularity of alcoholic distilled beverages was built up very much as the popularity of patent medicines has been during recent years. After the custom of drinking distilled alcoholic beverages became fastened upon European peoples, it became almost impossible to change the custom, because a supporting tradition had sprung up and powerful vested interests were involved in the manufacture and use of distilled liquors. Even yet our civilization is wrestling with the problem of how to get rid of this manifestly abnormal element in man's diet.

Cannibalism as Illustrating the Origin of Cultural Errors

We have used the drinking of alcoholic beverages as an error in the food process because it will help us to understand an even more striking error, which is not within the realm of everyday experience. We refer to cannibalism, the technical name for which is anthropophagy, which is a Greek word meaning "man eating." We have no difficulty in recognizing this as an error in the food process, and it will be instructive to us to study this somewhat unpleasant subject carefully, because it will throw light not only upon how errors in culture arise, but also upon the whole nature of human institutions. Let us note at the very beginning that we rarely find among the higher animals the practice of eating members of their respective species. This does sometimes occur under domestication, but as these conditions are relatively abnormal, we cannot judge from them. The most bloodthirsty carnivora, such as the tiger and the lion, rarely eat their own kind. Even the wolf, which has the reputation of being about the most predatory animal of which we have knowledge, seldom seeks to prey upon its own kind. It is said, however, that when a wolf is wounded in a pack and falls, the other wolves of the pack will frequently attack and eat it. These cases are, however, so exceptional in the animal world that they have attracted the attention of students of animal life. In general, then, it can be said that cannibalism is very rare among the wild animals below man. It is possible that the consciousness of kind or some other natural impulse or aversion prevents them from preying upon their respective species.

Cannibalism Not Primitive

It used to be thought at one time that cannibalism was a universal primitive practice among men. Careful study, however, shows that there is no adequate evidence to support this assumption. We do not find evidence of a universal cannibalistic stage in history through which all peoples have passed. On the contrary, cannibalism as a custom seems to have been confined to a relatively few peoples. This is not saying, however, that sporadic or occasional cannibalism, brought about by starvation or famine, has not existed more or less among all peoples. Such cannibalism occasionally breaks out even among the most civilized. Shipwrecked European sailors, when confronted by starvation, have been known to eat some of their own number; and, if we can believe fairly reliable reports, cannibalism of this sort broke out in Persia and in Russia during the famines following the World War. This sporadic cannibalism, however, does not seriously concern us, because it rarely, if ever, results in the establishment of the *custom* or habit of cannibalism in a people. Nevertheless, it probably has something to do with the starting of such a custom.

Diffusion and Forms of Cannibalism

When we examine the cannibalistic peoples of which we have knowledge that existed in the nineteenth century, we find that they were mainly confined to the tropics; that they were usually peoples above savagery, with some agriculture; and that they usually had few, if any, domestic animals as a source of food supply. Almost invariably they were warlike peoples. We find two well marked varieties of cannibalism among these peoples, which have been called "exo-cannibalism" and "endo-cannibalism." Exo-cannibalism was the practice of eating members outside of one's group, usually outside of the tribe. It is the much more common form of cannibalism. Peoples that practiced it were warlike and usually had the habit of eating the war captives.[1] Oftentimes regular raids were made upon other peoples to furnish a supply of human flesh. Endo-cannibalism was the practice of eating members of one's own group, usually the dead bodies of friends or relatives. It seems to have had back of it a different set of ideas and not to have been so definitely linked with warlike customs. There is some reason for thinking, however, that endo-cannibalism as a custom sprang from exo-cannibalism. In some cases we find both forms of cannibalism existing in a single people.

Causes of Cannibalism

If we classify the forms of cannibalism according to the motives involved, we get more light upon the custom. There seem to be three very different sets of motives involved in the practice of cannibalism: (1) starvation or famine, which usually resulted only in temporary or sporadic cannibalism, but which may have something to do with the initiation of the custom; (2) hate or vengeance, which in war led to literal bloodthirstiness on the part of man, and which may also have had something to do, therefore, with starting the practice; (3) superstitious beliefs. All the evidence goes to show that superstitious beliefs were the decisive factors in establishing such a custom, with the motives of hunger and vengeance playing a minor part. These superstitious beliefs were of three sorts: first, the belief that by eating an individual one destroys his ghost, so that it will not molest one further; second, the belief that by eating an enemy one can acquire his desirable qualities; third, the belief that by eating human sacrifices made to the gods one receives certain benefits. We may add that among some primitive peoples filial piety seems to have been a motive in the practice of endo-cannibalism,[2] for the aged frequently prefer to be eaten by their relatives and friends rather than to die a natural death, be buried in the ground and, as they say, eaten by worms. It is certain, if we mean by cannibalism a custom or institution, that these superstitious beliefs were the decisive factors in its *establishment*. This is not to deny that such a crisis as starvation may have had something to do with its *initiation;* but, as we have pointed out, the sporadic cannibalism resulting from famine or starvation does not seem to have been responsible for the custom or institution of cannibalism; for, in all such cases that we can discover, cannibalism is abandoned when other food becomes abundant. Neither does the lack of domesticated animals explain the establishment of such a custom. Some cannibals seem to have had certain domestic animals, while a meat supply from hunting was obtainable in all cases. It was, therefore, the erroneous ideas which we have mentioned which gave rational justification to cannibal peoples for their practices. Of course, to some extent it is probable that these beliefs were invented to explain and justify, or as we now say, to "rationalize," the practice.

---

[1] Malinowski has gone so far as to declare that "Head-hunting and exo-cannibalism are aspects of warfare."

---

[2] Malinowski even holds that "Endo-cannibalism can only be understood as a form of ancestor worship."

Nevertheless, they were the necessary support of the institution.[1]

Trial and Error in the Development of Institutions

This brief study of cannibalism shows us most important truths regarding all human institutions. It shows us conclusively that *the evolution of human institutions has been a process of trial and error.* It has been a process of selection, but a selection based upon the interests, feelings, and ideas of groups. We see that no human institution can exist, or even begin, without supporting beliefs and feelings justifying the practice, and these must accompany its development before it can become a custom or an institution of a human group. It was for this reason that Sumner rightly said that an institution always consists of a concept and a structure. The concept furnishes the pattern in the minds of the members of the group for the institution. But an institution must also always have the sanction of feeling. It is a way of living which has been approved by the group. There are always certain feelings, therefore, as well as certain beliefs, which accompany the development of human institutions. It is the beliefs and feelings which make the perpetuation of the institution possible; for these beliefs and feelings are inculcated in the young by various forms of education and group pressure. The young are taught the custom by the older members of the group, and appropriate feelings and beliefs are instilled into the young to support the custom.

Moreover, the group is apt to become organized in such a way that it is to the interest of the individual to go with the prevailing custom. Vested interests of certain members of the group go also to support the custom or institution. Among cannibal peoples, for example, the priest class and the governing class often had an interest in maintaining the practice. It became a part of the economic system, for among some of these peoples regular markets for human flesh existed, and some people made their living through the selling of human

CHAP. VII

flesh. After a successful warlike raid, it was a question what should be done with the captives, but when it was found that they could be used as food, war was encouraged as a practical business from the economic and food supply standpoint. We may sum up, therefore, and say that the institution of cannibalism, like all human institutions, depended for its establishment upon (1) beliefs which "rationalize" the practice; (2) feelings, including desires and habitual appetites; and (3) vested economic interests.

Feeling and Habit in Institutions

We now see plainly that erroneous adjustments in culture do take place and how they have come about. They may start as accidental adjustments, but they become established only through erroneous ideas or beliefs. They are always supported, however, by certain feelings and habitual desires. The support of feeling is easily obtained, because man's feelings are attached both to his natural impulses and to his acquired habits. Feeling and desire are easily manipulated to sanction almost any course of action. Finally, certain economic interests usually get involved when any such practice or custom is long enough continued, and this makes it more difficult to change the custom. Savage and barbarous peoples have neither enough accumulated experience nor enough critical intelligence to be able to criticize their own institutions. In fact, few peoples have. There is much evidence still among the peoples of highest civilization that they are often quite unable to criticize their own institutions. We must remember that, while culture is a learning process, it is a learning process without a teacher. It is only through self-criticism that human groups can correct their errors, unless, indeed, some misfortune or calamity demonstrates the error of the adjustment to all. Nevertheless, through experience men do learn gradually to correct their errors.

The Change of Customs

It seems to be true, however, that some barbarous tribes saw the disadvantage in cannibalism and proceeded to abolish it—

a fact which shows that even barbarous peoples had some ability to criticize their own customs and institutions. Indeed, if they had not, it would have been difficult to explain the undoubted fact of the change of customs by human groups. If human groups had been totally unable to change their customs through experience and critical intelligence, social progress would have depended entirely upon competition and resultant natural selection among groups. In other words, groups with inferior customs and institutions would have been eliminated in competition with the groups that had superior customs and institutions and only in this way would progress have been possible. Many sociologists have thought that this is the actual method of progress of human society; but there is little evidence to support this view as a universally valid generalization. On the contrary, *natural selection among groups seems to have played only a minor part in the development of culture.* Culture has mainly developed through the accumulation of experience within groups and through borrowing by one people from another. The method of progress has been a process of selection, to be sure, but not of natural selection—rather of more or less rational selection. Fully rational selection is possible, however, only after critical intelligence has been developed.

The Elimination of Erroneous Adjustments

The human mind, having little critical ability to start with, made at the beginning, and indeed continues to make, many erroneous judgments. The development of culture has been as much a process of un-learning these wrong judgments or beliefs as it has been of learning right adjustments. In one sense it is entirely correct to say that *the evolution of culture has been an evolution away from error.* We do not mean by this that man started his career with completely erroneous beliefs and completely wrong adjustments. Manifestly he could not have done so and survived. But man started with ignorance and a very considerable amount of error has been consistent with survival. On account of the lack of critical intelligence at the beginning, errors have been numerous in every phase of culture. Gradually and painfully man has been learning to free himself from these errors. Cannibalism was only one of many. We should remember in judging cannibal peoples that we still have war with us, and that until recently slavery was practically universal in the so-called civilized world. All peoples have errors in their beliefs and institutions. The process of civilization consists, as we have said, in part of detecting and getting rid of these errors. This fact, again, suggests to us the direction and the goal of cultural evolution.

SUGGESTED READINGS

Hastings, J.—*Encyclopedia of Religion and Ethics,* articles on "Cannibalism," by MacCulloch in Vol. 3 and on "Food" and "Drinks" by Crawley in Vols. 6 and 5.

Deniker, J.—*The Races of Man,* pp. 144-153.

Handbook of the American Indians, article on "Food" by Hough.

Sumner, W. G.—*Folkways,* Chap. VIII.

Wallis, W. D.—*An Introduction to Anthropology,* Chaps. XV, XVI.

Westermarck, E.—*Origin and Development of the Moral Ideas,* Vol. II, Chap. XLVI.

Wissler, C.—*The American Indian,* Second Edition, Chap. I.

CHAPTER VIII

THE DEVELOPMENT OF AGRICULTURE

CHAP. VIII

The Meaning of *Agriculture*

As we pointed out in the previous chapter, the food process, for all peoples above the level of savagery, has centered about the development of agriculture. By *agriculture* we mean the cultivation of plants and animals for an artificial food supply.[1] No part of man's conquest over physical nature has been of more importance than the production of an artificial food supply. Indeed, this has been, as we have seen, the material basis for the development of all the higher phases of human culture. Strangely enough, it has been the basis for the development of much that was evil as well as of much that was good. For the production of an artificial food supply put great power into the hands of men; and this power, like all power, could be used either for good or evil. While agriculture has brought man food, clothing, security, comfort, leisure, and opportunity for the development of science and art, yet it has also brought him war, slavery, and the exploitation of labor. Evidently when man started upon the production of his own food, he entered upon that conquest of physical nature which has down to the present been the most striking feature of his material culture. The study of the beginnings of the cultivation of the soil and of the domestication of plants and ani-

---

[1] See the note in Chapter II on the meaning given in this book to the term *agriculture*. Professor Gras defines "true agriculture" as "the integrated combination of both plant and animal cultivation." For our purposes, therefore, an imperfect agriculture exists if there is either plant or animal cultivation.

SOUTHERN CALIFORNIA SCHOOL
OF THEOLOGY LIBRARY

mals is therefore one of the most important phases of the study of culture.

We have every reason to believe that the cultivation of plants and animals developed as a result of the crises caused by periodic scarcity of food. It seems probable, also, that the cultivation of the soil, and probably also the domestication of animals, was first begun by women, as scarcity of food is most likely to affect the mother and the child. If this is true, then agriculture was mainly a development from the child-care pattern, of which we have spoken. We have good reason for believing this, because in all barbarous peoples of which we have knowledge the men remained largely hunters long after the women had begun to cultivate the soil. Primitive agriculture was mainly a woman's occupation, though of course the men helped the women more or less.

It seems quite logical to assume that the first attempts at the cultivation of the soil were very crude and simple, and that they were the result of careful observations which were stimulated by food shortage. The first observations may have taught only the wisdom of not gathering all of a certain fruit or seed, or of leaving certain roots in the ground so as to produce other roots. Thus, the North American Indians were usually careful not to gather all of their wild rice, and the Australian aborigines regularly left a part of the roots which they used for food in the ground. Later observations taught early man to stir the ground around certain plants, to pull up weeds, to furnish water in dry weather, to fertilize, to mulch, and finally to save seed for future use and to plant it.

Where the practice of the cultivation of the soil first began is not exactly known. Fairly accurate history shows, however, that there were two early centers of agriculture: the Nile Valley and the Tigris-Euphrates Valley. The best evidence at present seems to show that the earliest agriculture began in the Valley of the Nile. It will be noted that, in both of these cases, an unfavorable desert region lay close to the favorable narrow, fertile area in the river valley. Thus we have conditions which might not only occasion crisis, but also favor a solution and control. At any rate it seems probable that agriculture began in the Valley of the Nile about fifteen thousand years ago, possibly earlier. An invention, we remember, requires a crisis to stimulate the mind to activity, but the crisis must not be too great, and conditions for meeting the crisis must be relatively favorable.

Separate Centers of Origin

There seems to be no reason for assuming, however, that the invention of agriculture could have happened only in one place and at one time. The conditions of the Nile and the Tigris-Euphrates Valleys are practically duplicated in many parts of the earth. There were probably, then, other places with similar conditions in which people discovered, perhaps somewhat later, the art of cultivating the soil. There is no necessity for assuming that the centers of agriculture in the New World got their knowledge of agriculture from the Nile-Tigris-Euphrates center in the Old World. Indeed, very different plants were brought under cultivation in the New World. In Egypt it seems to have been principally the grains, but in America it was maize, squash, beans, and the like. Thus each center of origin of agriculture seems to have contributed different plants for the food supply of man. Then began the long process of the improvement of these food plants as the result of careful observation, experiment, and selection. The inventiveness of early man is amply demonstrated in this process of the development and improvement of food plants. Thus the American Indian developed from the wild, scrubby maize plant, which grew only one small ear, many of the different varieties of Indian corn or maize common today. We mention this example because it is a striking testimony to the achievements of pre-literate peoples in the selection and improvement of food plants.

It seems probable again that much of this selection and improvement was the result of the work of women, although it is also certain that in such places as the Nile Valley in the Old World men also got into the game. It should be remembered that nearly all of this early agriculture was what we know today as hoe agriculture, or gardening. Of course this implies that only small plots of ground could be taken care of under ordinary circumstances. Nevertheless, the American Indians at times cultivated with hoe agriculture extensive fields of Indian corn or maize. This type of agriculture still predominates in many parts of the world. The invention of the plow and the domestication of animals would obviously bring in agriculture of another sort, which we may call "extensive agriculture." [2]

The Domestication of Animals

This bring us to the problem of the cultivation or the domestication of animals and the part which domesticated animals have played in the development of culture. Probably some animals were domesticated long before the soil was cultivated. This at least seems to have been the case with the dog.[3] Many students think that the dog was domesticated in Paleolithic times; and the fact that all peoples existing in modern times, even the lowest savages, have their dogs would seem to be in harmony with this view. The dog has been a universal companion of man, and therefore it would seem that his domestication must have occurred in very remote antiquity. We know for certain that dogs were already domesticated in the earliest Neolithic times. While there are some who think that the horse and the reindeer were also domesticated in Paleolithic times, the more general view is that the horses and reindeer depicted in Paleolithic drawings were wild, and not domesticated. It is probable again, however, that horses and reindeer were domesticated in the early Neolithic times.

---

[2] Some writers would limit the term *agriculture* strictly to this particular sort of cultivation of the soil.

[3] Even the domestication of the dog was apparently for the sake of control over food supply, for if the dog was domesticated to aid in the hunt, this was indirectly to aid in securing food. So also the domestication of the cat, probably for the sake of protection against destructive rodents, was an indirect means of controlling food supply. Gras in his *History of Agriculture in Europe and America* (p. 6) says, "Apparently most peoples of the world have cultivated animals before plants." He thus takes issue with Hahn, who held that hoe agriculture preceded the domestication of animals for food purposes. Elsewhere he says, however, that the two may have grown up side by side in some districts and in others "either may have arisen to supplant hunting as the domestic occupation."

It should be remembered that domestication in the strict sense is a process very different from the taming of animals. All peoples keep pets, and this practice may have had something to do with the origin of domestication. It should also be remembered that many primitive peoples have regarded the wild animals upon which they depend for food with superstitious reverence, and that this led to keeping certain animals in captivity. It was discovered that some animals thus kept captive could render certain services to man or be a source of food supply. Then ensued a process of selection which resulted in retaining those individual animals which most readily attached themselves to man and submitted to his care and domination, and which man in turn found most useful and tractable. Thus a relation of mutual dependence sprang up between these animals and man; and this relation is what we call domestication. Domestication in this sense is really a case of *symbiosis,* or *commensalism;* that is, it is really a case of mutual parasitism. The domestic animal is parasitic upon man, and on the other hand, from one point of view, man is parasitic upon the domestic animal. If the parasitism is not mutual, we should not strictly call it a case of domestication, although in loose common language we speak of the "domestic" fly and the "domestic" mouse. Thus, domestication, in the strict sense, is brought about by a selective breeding process based upon the elimination of less desirable traits and the retention of the more desirable traits. This selective breeding process is continued often to produce not simply traits for utility, but also those for beauty. Thus modern dogs exhibit a number of breeds obviously produced as much for their beauty as for their useful traits.

It might seem at first that if domestication of animals has been produced by selective breeding, then almost any species of animal might be domesticated. This, however, has not been the experience of man. Comparatively few animals can be domesticated in the strict sense. Most wild animals do not develop variations favorable for domestication. Thus, the American Indians in both North and South America found very few animals which they could domesticate, and this has often been pointed out rightly as one of the main reasons why they failed to develop a high civilization. Their failure to domesticate animals was wholly because of lack of animals suitable for domestication, not because of lack of intelligence. This is proved by the fact that the American Indian succeeded in domesticating so many valuable food plants. He also domesticated several kinds of dogs, and in South America the llama and the alpaca. In North America he did not succeed in domesticating the bison, nor has the white man done so to this day, although experiments have been carried on in this direction.

Domestication Practiced by Pre-literate Peoples

Practically all of the more important domesticated animals were domesticated before the period of written history began. This again testifies to the powers of observation, of experiment, and of practical scientific knowledge of pre-literate peoples. The greatest advance in man's control over food supply probably came with the domestication of the large ungulates, such as cattle, sheep, hogs, and horses. Cattle were already domesticated in Egypt as early as ten thousand years ago, possibly earlier. From Egypt the keeping of domestic cattle spread to adjacent lands. This does not mean, however, that all domesticated cattle came from Egypt; neither does it mean that the pattern for cattle domestication came exclusively from the Nile Valley. Apparently several different wild species of cattle were domesticated by different peoples at different times. Each of the three continents of the Old World furnished different species or types of cattle. The numerous different existing types of domestic cattle bear evidence to the fact that there must have been a great number of experiments in different centers where distinct species of wild cattle were found; for there is a variance in the purpose, the shape, and the type of the cattle which have been bred. The Chinese pattern of domestication for cattle is very different from that of Egypt and Europe; for the Chinese will not use milk or its products, while the Europeans have no aversion to doing so. Some peoples use cattle almost wholly for their milk products; others use them chiefly for beef, while still others use them for transportation. Thus different purposes have led to the development of different patterns in the process of domestication. Cattle have been bred for so many different things that it is difficult even to enumerate the main purposes. They have been bred for meat, for milk, for cream and butter, and even for various types of beauty. All of these various types of domesticated cattle are obviously the result of man's experimentation and invention in the field of selective breeding. Just as we saw in the development of stone implements how one invention succeeded another until each purposive pattern had reached the limits of its perfection, so we discover exactly the same curve in the process of domestication. We have used cattle to illustrate this, but almost any other domestic animal would have served equally well.

It is unnecessary, therefore, to go into details of the domestication of various species of animals. The domestication of the horse follows, of course, the same general pattern as the domestication of cattle. Probably the horse was first domesticated in Central Asia about seven or eight thousand years ago. Perhaps horses were first domesticated as a source of food supply, for some Asiatics still use the horse largely for food, by using mare's milk and eating horseflesh; but the use of the horse for transportation was soon discovered. It is hardly necessary to point out that this particular use of the horse had a very great effect upon the development of culture in the Old World. Here was an animal that was capable of going comparatively great distances at a comparatively high rate of speed, carrying a considerable burden. It is not too much to say that the domestication of the horse had an effect upon the primitive culture of the Old World very similar to the effect which the invention of the automobile has had upon our present culture. The horse annihilated distance for that primitive epoch, and made it possible for whole peoples to live a nomadic life in which they moved, even in a single season, over hundreds of miles of territory. The effect of the introduction of the horse upon culture could be easily observed in the case of the American Indian; for there were no horses in the New World before the Spaniards brought them. As students of the American Indian have pointed out, the horse brought a whole new complex of culture. Certain tribes became nomadic and more warlike. They took, in other words, to a predatory life. Probably the horse had much to do with the development of war in the Old World also. We know, at any rate, that the horse has played a large part in the development of warfare. The horse has fought along with man, and many of the best breeds of horses, such as the Arabian, were perfected by breeding them for the purposes of war.

Effect of Domestication upon Culture

Pastoral Industry

Human history and cultural development cannot be clearly understood unless attention is paid to the part which the domestication of animals has played in the process. The domestication of such animals as horses and cattle reacted upon the whole development of human society, and especially upon the development of agriculture. It promoted another element in agriculture than the cultivation of the soil. In some areas which were favorable to the grazing of large flocks and herds, the cultivation of the soil was almost entirely given up, and hoe agriculture was superseded by what we know as "pastoral industry." In pastoral industry peoples came to depend for their food supply mainly upon domestic animals. Whole peoples, moreover, became nomadic, and as we have already pointed out, wandered even in a single season over many hundred miles of territory. Such peoples had necessarily to become organized for fighting, for they came at times into conflict with both settled and wandering groups. Nomadism in itself requires a special type of social organization, while conflict between groups still further altered the type of social organization.

In late prehistoric times pastoral industry spread over the larger part of both Asia and Europe. We can scarcely understand the social development of the Old World without bearing this fact constantly in mind, for pastoral industry ushered in almost all of the typical institutions, such as the family, political organization, and religion, which we find at the beginning of recorded history. The very fact that the word *chattel* is a direct derivative of the word *cattle* indicates how strongly the development of property and ideas of property was influenced by the domestication of animals. It would be a mistake to stress too much the pastoral industry and domestication. Nevertheless, when we compare the culture of the Old World with that of the New, we see that domestication and the pastoral industry were very large factors in the development of Old-World culture. The fact that the fauna of the Old World abounded in animals suitable for domestication shows also the indirect relation of geographic environment to culture; for if the environment had not furnished the materials for this cultural development, as it did not in the New World, the development, of course, could not have taken place.

The influence of the environment is also shown in the fact that the domestication of animals did not in all cases lead to nomadism and the development of a relatively pure pastoral industry. This was especially the case in fertile river valleys. Nevertheless, in these localities domestication transformed agriculture. It modified it in many ways. Perhaps the chief of these modifications was the introduction of the plow, which could be drawn by either the domesticated horse or the domesticated ox. This led to the development of relatively extensive agriculture and to greater control over food supply. These fertile regions where the soil continued to be cultivated and where food became very abundant, not only became centers of population and wealth, but also a temptation to the nomadic pastoral tribes whose life led them to be not only warlike but predatory. Thus the ramifications of the whole process of domestication of animals is very complex, and we shall have occasion to touch upon them in later chapters. The process of domestication as an aspect of material culture has had the profoundest influence upon the development of all subsequent culture.

Limits of Domestication

Practically no additions have been made to the list of important domesticated animals since the discovery of America four centuries ago. Whether this is because all animals suitable for domestication have been domesticated or not, it is of course impossible to say; but this fact emphasizes again how largely the foundations even of our material culture were laid by early peoples, mostly by peoples of whom we have few or no historic records. We cannot, of course, say that the domestication of animals has come to an end. In a large sense, it would seem probable that only animals fully or partly domesticated would eventually survive upon our earth. This is indicated by the fact that in the older and more thickly settled countries wild game is preserved only by keeping intact certain game preserves, in which the wild animals are virtually dependent upon man. Thus the process of domestication in one sense bids fair to be extended to all animals, only those animals surviving which man finds some use for, and which can in some way be brought into dependence upon him.

Limits of Agriculture

The same statement holds true, though perhaps in a less degree, regarding the plant world. Man's material culture, at any rate, has aimed at bringing nothing less than the whole world of life upon this planet into subjection to man's purposes. Some evolutionists tell us that in one sense the production of the lower forms of life was incidental to the creation of man; apparently these forms are destined to survive only as they are taken, so to speak, into the circle of human society. This of course in no way contradicts the truth that man is quite dependent, in his material life and culture, upon the forms of life beneath him. We are only pointing out that this dependence of living forms upon our planet is now becoming a mutual, and, so to speak, social dependence.

Obviously the trend of agriculture is toward man's complete control over his food supply. This is often denied by population theorists. The best evidence seems to show, however, that there is a tendency to equilibrium between population and food. Man has been gradually learning how to control his numbers as well as how to control food supply. We have every reason to believe that the outcome of the process of producing artificial food which was begun with the invention of agriculture and the domestication of animals will be an adjustment of food supply to human needs, although this is not saying that man must not find the way of so controlling his own behavior that he will adjust himself to the resources which nature has furnished him.

SUGGESTED READINGS

Gras, N. S. B.—*A History of Agriculture in Europe and America,* Chap. I.

Breasted, J.—*The Conquest of Civilization*, pp. 26-33, 46, 47.

Handbook of the American Indians, article on "Agriculture" by Thomas.

Kroeber, A. L.—*Anthropology*, pp. 412-416.

Ratzel, F.—*History of Mankind*, Vol. I, pp. 88-93 (in Thomas, *Source Book for Social Origins*).

Roth, H. L.—"On the Origin of Agriculture" (in Thomas, *Source Book for Social Origins*, pp. 98-112).

Wallis, W. D.—*An Introduction to Anthropology*, Chap. XI.

CHAPTER IX

THE DEVELOPMENT OF WAR

CHAP. IX

WE have already seen that war is a development of the hunting pattern. It is popularly supposed that war is quite as primitive as hunting, or in the language of Hobbes, that the primitive state was a state of war of all against all. We have also seen that this idea seems in part to have been endorsed by Dr. Clark Wissler when he makes war one of the fundamental parts of the skeleton of culture.[1] But, as we have already pointed out, the evidence does not permit us to believe that war was primitive in the human species. The common assumption that man is naturally a fighting animal, and that therefore he is naturally a warlike animal, is not sustained by the evidence, or rather it is sustained only in part.

War Not Primitive

An English anthropologist has well said,[2] "It is too commonly assumed that violent behavior is 'natural' to men, in that they will infallibly exhibit it, to a greater or less degree, in their ordinary daily intercourse, unless restraining influences are at work. The notion of a community where any sort of violence was practically unknown would sound absurd to most of us. We are apt to think that 'civilization' has tamed the 'savage,' that it has imposed restraints on his violent tendencies, without inquiring as to whether this really is the case. I am convinced that this is one of the most profound mistakes that can be made, and that, until this error is eliminated from current thought, there is little hope for any solution of the greatest problem that confronts us as civilized men and women, namely, the elimination of violence from the relations between States, and, indeed, from all human relationships." This same writer says of the primitive food-gatherers, "These people, one and all, live peaceful lives when left undisturbed. It would seem that peaceful behavior is really typical of mankind when living simple lives such as those of the food-gatherers."

---

[1] *Man and Culture,* Chapter V.

[2] Perry, *The Growth of Civilization,* p. 191.

We cannot, however, agree with this writer when he implies that violence is not natural to man and that mankind has to be educated into cruelty. The evidence from the animal world is overwhelmingly in favor of the supposition that man has natural tendencies which lead him easily into fighting and cruelty; and this is shown by the relations of man and the lower animals in the hunting stage of existence. Man's fighting tendencies were, however, developed by nature in man's struggle with the animals below him, and were naturally directed toward species other than his own. We find no evidence which leads us to believe that in primitive times there was fighting between human communities as such.

The Origin of War

The foundation in human nature for the development of war was laid in the fighting impulse developed by man's struggle with the brute world, and to some extent by his struggle with his fellows for the possession of food and mates. We find a similar natural impulse in all the higher animals, but this impulse in the higher animals does not lead to war among them. At most, it gives rise merely to individual combat. Even among boys the same impulse manifests itself in individual combats, but not in anything approaching war. If war is a development from the hunting pattern, how did this pattern get turned from its normal direction against the animal world to a direction against other human groups?

Before answering this question, let us note that there can be hardly any doubt that the war pattern is a development of the hunting pattern. In the first place, both patterns involve the killing of other beings, whether brute or human depending upon the specific case. The tools or implements used in both cases are quite similar if not identical. This was at least true of primitive war. If we consider the primitive weapons used both in warfare and hunting, we find them almost the same: the stick, the spear, the club, the sling, the bow and arrow, and many other primitive implements. In time, of course, the implements of war became specialized and differentiated from those used in hunting. Many of the practices of primitive war were learned directly from the hunting of wild animals. For example, poisoned arrows were undoubtedly suggested by the poison of serpents. The shield was evolved from the numerous devices which animals use for protection, such as the shell. In fact, all of the processes and practices of war were, with very few exceptions, secured directly or indirectly from experiences in hunting animals.

What was the crisis, then, which turned the hunting pattern through which man obtained his food supply against other human groups? Obviously, it was connected with food. War may be regarded as an outcome of the food process under certain conditions. But what were the conditions? No simple answer can be given. Scarcity of food might have led to organized conflict between human groups more or less even before the cultivation of the soil was begun. This is indicated by the fact that there is more or less warfare among existing savage peoples in the middle and upper stages of savagery. Perry's statement that primitive peoples do not fight as communities is true only of those in the lowest stage of culture. The Australian aborigines had occasional fights between their groups, though these were rarely of a serious character. In upper savagery, however, we find some peoples, like the Athapascans of North America and the Caribs of South America, fairly warlike. In such cases the motive for fighting seems to be the possession of hunting grounds, in other words the possession of certain sources of food supply. Of course, such fighting could take place only after population became fairly dense and groups began to encroach upon each other's hunting territory.

War among Savages and Barbarians

As Professor Tozzer points out,[3] the fighting customs of savage and even of barbarian peoples have been exaggerated. The fighting of the American Indian tribes, for example, was rarely on a large scale, though to this statement there are several exceptions. Most of the North American Indians practiced hoe agriculture. There was a difference, however, in this respect among the various tribes. Some were more settled and agricultural than others. These more settled agricultural tribes were often raided by the more nomadic tribes, for the sake of garden plunder or perhaps women and children. Owing to the fact that agriculture was not of the extensive variety, the question of territory did not enter in except as to hunting territory. The warfare was, therefore, in the nature of predatory raids, or what would now be termed guerilla warfare. Thus the Navajos and Apaches, Athapascan tribes which had come down from the north, raided the peaceful Pueblo Indians, driving them to take refuge in cliff dwellings. A feud naturally grew up between the two which has continued more or less to this day. Again, the wandering Siouan tribes, living mainly from the hunting of the buffalo, not infrequently attacked and raided more peaceful Indian communities. Another example would be the relatively warlike Iroquois tribes of New York State in their attacks upon the relatively peaceful Algonquin peoples, or even upon more peaceful Iroquois communities. In all of these cases we see that the occasion of war was plunder or else a quarrel over the possession of a certain source of food supply.

---

[3] *Social Origins and Social Continuities,* pp. 88, 236.

War among the Lower Civilized

The best examples of organized war in the New World are, however, to be found in connection with the relatively civilized peoples of Central and South America. Here again the same kinds of facts come into view. The earliest civilized people in Mexico and Central America, as far as we know, were the Mayas. Apparently the Mayas were always a relatively peaceful agricultural people. Wilder tribes from the north began to make incursions upon them. The chief of these were the warlike Aztecs, who apparently began to move southward from Arizona and northern Mexico about 600 A.D. They found Mayan culture far advanced and Mayan communities fine for plundering. Their methods of conquering were very thorough. They overran the territory, took hostages, made the hostages cultivate the soil or fight for them, and in some cases offered them to their gods and ate them, though cannibalism seems to have been practiced by the Aztecs mainly as a religious ceremony. Gradually the Aztecs thus conquered and took possession of practically all of what is now Mexico, but they were never more than a minority among all the peoples of Mexico. They not only overthrew the old Mayan civilization, but in large part took it up and assimilated it. That the motive of the Aztecs was the plundering of a peaceful people can hardly be doubted. The Aztec conquest of Mexico was, in effect, but a grand hunting expedition which lasted for several centuries. The later Spanish conquest was, of course, no different in character.

The development of warfare among the ancient Peruvians seems to have had somewhat similar motives. The original Quechua and Aymara peoples, who constituted the nucleus of the ancient Peruvians, seem to have come from the barren region around Lake Titicaca. They descended upon the peoples who lived in the more fertile valleys by the cultivation of the soil. They used largely the same tactics as the Aztecs in taking hostages and making these hostages either cultivate the soil or fight for them, though they did not practice cannibalism. Gradually the conquest of the Quechuas extended as far north as Ecuador and as far south as Chile, and included the subjugation of several million people, most of whom seem to have been well advanced in agriculture. Their Peruvian conquerors organized them after a military pattern. The continued military activities of the Incas, as the ruling caste of Peru was called, necessitated the permanent regimentation of the people for all of the activities of life and the development of a centralized autocratic government. The plunder expedition of Pizarro and his band succeeded in overthrowing this militant society because Pizarro was successful in capturing the autocrat who headed it.

These examples show clearly the truth of what Tozzer says: [4] "The implications of organized warfare are an advanced technology and a development of effective weapons. The motives behind organized warfare are advanced notions of property, both real and personal. A relatively high social organization and a group spirit making possible military coöperation are usually present, together with an advanced economic status. This is correlated with a relative freedom of the warrior class from the necessity of seeking food and with the subjugation of a servile laboring class whose main duty is the cultivation of the fields." Tozzer concludes that "warfare is seldom endemic among primitive peoples."

Development of War in Europe

The general facts of the development of warfare in the Old World confirm these views and throw further light upon the matter. The first Neolithic inhabitants of Europe were agriculturists, with very few domestic animals. They apparently came into Europe from the southeast and settled along the shores of the Atlantic, along the northern shores of the Mediterranean, and in the river valleys. But about 4,000 B. C., possibly earlier, the relatively peaceful settled agricultural communities of Western Europe began to be raided by nomadic peoples from the Eurasian steppes, coming on horseback. They plundered the Neolithic peoples of Europe, and conquered and enslaved them. Many scholars now believe that these nomadic intruders from Asia were the primitive Aryans, and that it was in this way that Aryan languages and Aryan customs became imposed upon nearly all the European peoples.[5] The war pattern in this case differed considerably from that of the New World. The Old-World pattern included horses and cattle. The horses enabled the invaders to move quickly, while the cattle supplied food wherever they went. There was no cannibalism, for there was an abundance of food, due to the presence of these domesticated animals. Many of the warlike invasions by the nomadic peoples were essentially in the nature of cattle raids.

---

[4] *Op. cit.*, p. 215.

In general, we can say that war did not become organized on a large scale in the Old World until the advent of domesticated horses and cattle, in the third and fourth millenniums before Christ, though as we have seen it attained considerable development in the New World without such domesticated animals. In the Old World the domestication of the horse revolutionized warfare, just as modern science has revolutionized it within recent years. The horse immensely extended the scale of war and made it necessary for the peaceful peoples to become organized against attack. The agriculturists of the Nile and Tigris-Euphrates Valleys were forced to adopt military organization to resist the raids of the warlike nomadic peoples from the north. Europe, especially, became an object of these warlike raids by various peoples from the Eurasian steppes, for Europe was mostly settled and agricultural, while the nomadic peoples of the steppes were pastoral.

War and Cannibalism

We now see the immense part which the development of agriculture and the domestication of animals played in the development of war. Aggressive war in prehistoric times was simply a turning of the hunting pattern toward human communities; and it is hardly necessary to add that there would and could have been no defensive warfare without aggressive warfare. It is not unfair, therefore, to compare the practice of warfare to the practice of cannibalism. Cannibalism, like war, was not primitive, but seems largely to have developed as an accompaniment of war; for cannibalism was also a turning of the hunting pattern toward human beings. Cannibalistic raids were simply the hunting of human beings, and were usually undertaken, as we have seen, by peoples in the tropics who lacked a meat supply.[6] War was undertaken for the sake of plunder, usually in the form of food, though to some extent also in the form of women and children. Both cannibalism and war have had largely the same motive and both are perversions of the hunting pattern. Cannibalism simply represents the extreme of the hunting pattern when turned toward human beings; war represents a more moderate development, with the object of plunder, first in the form of food, women, or children, and later in the form of territory or political power. *The essential significance of war in the human cultural process, then, lies in the fact that one human group is attempting to live at the expense of another human group*; and of course cannibalism has exactly the same significance.

---

[5] For a brief statement see Veblen's monograph, "The Blonde Race and the Aryan Culture."

We see this clearly regarding cannibalism and have universally united in its condemnation; but peoples have been slower to see this regarding war, because certain good results have incidentally accompanied warfare. It is notorious that warfare within the historic era has disciplined men, taught them the need of social organization, and created unity over large areas of territory. In fact, war gave rise to the state and government as we find them among the historical peoples. The whole evolution of these historical peoples has been connected with warfare, and it is almost impossible to conceive of their development apart from the disciplining and selective power of war.

---

[6] See Chapter VII.

War and Slavery

Perhaps a fairer comparison would be one between war and slavery. Slavery, we know, was one of the outcomes of war. Like war, it disciplined men, favored the division of labor and the development of social organization. Like war, slavery had both its good and bad sides; but on the whole, we have come to the conclusion that slavery was only a transitional institution in the development of culture, and that it has no place in the higher culture of the present or the future.

War a Transitional Phenomenon

It would seem that we must come to the same conclusion regarding war. War would seem to be a transitional social and cultural phenomenon, largely connected with food supply, the development of agriculture, and the competition for natural resources. When human groups have solved their problems of food and other needed raw materials, and have become socially adjusted to one another, there would seem to be no place for war in culture any more than there is for slavery. Humanity began its development with peaceful relations among human communities. We have every reason to believe that the trend of cultural evolution is toward the reëstablishment of peaceful relations among human communities upon a higher plane. War is a transitional phenomenon chiefly developed in barbarism and semi-civilization. It cannot continue to exist under general conditions of social enlightenment. Human society began in peace, and it will end in peace. Thus again we discover our curve to be in the form of a parabola. As man slowly rose from lower savagery toward barbarism, he became increasingly warlike, the maximum of his predatoriness coming in the stage of semi-civilization, but gradually diminishing with the further advance of culture until lasting peace among human communities shall be reëstablished through rational social control. The following graph illustrates this:

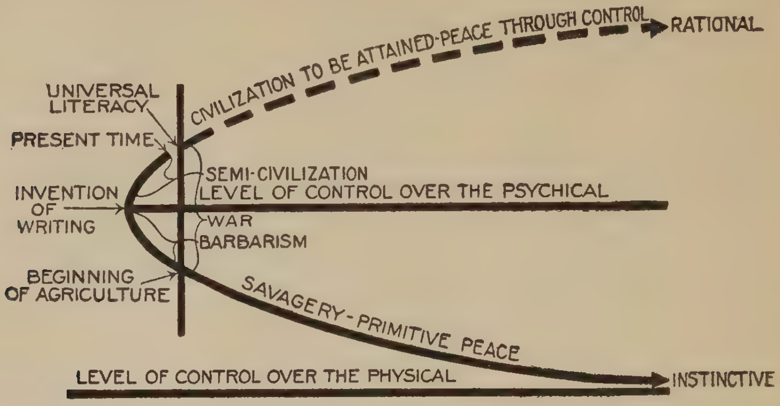

FIGURE 7

The Curve of Military Activities

The Elimination of War

We shall see, as we proceed in the study of culture, that war has been a dominant factor in the shaping of most of our institutions, and especially that it explains their otherwise unaccounted-for aberrations. It is perhaps not too much to say that war accounts for most of the social evils that are widespread in existing civilization. The proof for this statement will be adduced as we proceed with the discussion of various institutions. However, it would, of course, be more correct to say that war itself is simply one of the main evils which man has developed in the process of his adjustment to culture. Culture, that is, invention, inevitably placed power in man's hands, and the inevitable temptation was to use it for the self-aggrandizement of groups and individuals. If war may be viewed from one point of view as an erroneous social custom or maladjustment, why then did it originate? We have already attempted to answer this question. War originated because all culture proceeds by the process of trial and error. It is a long time before man discovers his erroneous social adjustments if he profits by them, either as a group or as an individual. Even after he learns he is in error, owing to various interests, feelings, and beliefs, he clings to his error frequently for a great length of time. Consequently, cultural errors are eliminated and dropped very slowly and with great difficulty. This is especially the case when these errors are only partial errors and have brought certain benefits. Slavery, for example, seemed to succeed for thousands of years; and it was dropped by the advanced peoples of the present only with considerable difficulty.

For this reason, the student of human culture cannot be greatly surprised that modern civilized peoples have not yet succeeded in getting rid of war. Obviously the spread of peace sentiment alone cannot stop war, though it may be one indispensable condition for its elimination. The vested interests which are behind war will have to be gotten rid of. We will have to change, also, the ideas and habits of the mass of the people. Since the most advanced nations are still but a short distance from the beginning of universal education, education for peace has not yet made much headway. Again, the forms of law and government, even among the most advanced nations, are adjusted to war rather than to peace. The war pattern which has come down to us from Rome has been closely associated with the development of governmental and legal forms. We have difficulty, therefore, in outlawing war even legally. We have not yet developed either an international law or an international organization which is efficient for peace.

Finally, it must be remembered that human psychology, as well as cultural traditions and social organization, presents obstacles to peace. Even enlightened human beings do not remain rational all the time. There is an irrational element in human nature as well as in human culture, and we must learn how to control unreason in one as well as in the other. The ultimate problem in human society is, after all, in the character of the social personality of individuals. The control of the development of personality is beyond the scope of this book, but we have no reason to believe that this problem presents an insuperable difficulty to the attainment by man of a true culture in which he will find himself adjusted to the requirements of his existence as a social and cultural being.

SUGGESTED READINGS

Perry, W. J.—*The Growth of Civilization,* Chap. X.
Hobhouse, L. T.—*Morals in Evolution* (1906 Edition), Vol. I, Chap. VI.
Sumner, W. G. and Keller, A. G.—*The Science of Society,* Vol. I, Chap. XIV.
Todd, A. J.—*Theories of Social Progress,* Chap. XIX.
Westermarck, E.—*Origin and Development of the Moral Ideas,* Vol. I, Chaps. XIV, XV.
Wissler, C.—*Man and Culture,* pp. 164-180.

CHAPTER X

THE DEVELOPMENT OF CLOTHING AND BODILY DECORATION

CLOTHING and bodily adornment are essential parts of man's culture. The dictum of Carlyle that "Man is an animal that wears clothes" is found by science to be substantially correct, and indicates the importance that clothes play in the life of man. Man universally adorns his body or wears something which we would call clothing. Even the lowest tribes have ornaments and every historic people of which we have knowledge have some vestige of clothing. We often hear of the "naked savage," but upon investigation this individual is found to have some sort of ornamental or protective devices attached to his body which might be called clothing.

Theories of the Origin of Clothing

There are three theories of the origin of clothing. They are that clothing originated (a) for the sake of adornment, (b) for the sake of protection, and (c) for the sake of modesty. All three of these theories have eminent advocates among the students of culture. Ratzel seems to adhere to the modesty theory; but modesty seems to play a subordinate rôle in the clothing and bodily decoration of all peoples. On the other hand, we find no people so low in culture that they do not attach great importance to bodily adornment. All peoples make use of bright stones, the gay plumage of birds, or the beautiful skins of animals to adorn their bodies. We must conclude from the evidence we have that ornamental clothing was probably the earliest form of clothing. Nevertheless, it is certain that clothing was developed mainly as a means of bodily protection. Even in the tropics, the skins of animals are thrown about the shoulders to protect from the sun and the storm. The earliest evidence of clothing which we have in Paleolithic times in Europe was toward the close of the Acheulean epoch, when the cold of the Fourth Glacial Period was coming on. During the Moustierian epoch, which coincided with the Fourth Glacial, we find abundant evidence of the use of clothing in the stone tools which have come down to us. The use of relatively full clothing, then, apparently began in Europe as early as 50,000 years ago, and it began as a matter of protection from the extreme cold produced by the advance of the great ice sheets. Thus we are led to conclude that, while clothing probably originated as a matter of adornment, it developed as a matter of protection, with sex modesty as a subsidiary motive. The importance of modesty as a motive in the development of clothing is shown, Ratzel contends, by the fact that among practically all peoples women wear more clothing than do men.

Clothing, as we understand it, has, however, developed as a means of bodily protection, with adornment and modesty as subsidiary motives. The invention of clothing in this sense must be attributed to crises of climatic and other environmental conditions which gave rise to the necessity for some sort of protection of the body. The temperate zones especially have afforded these conditions, and in them we have historically the chief evolution of clothing. Geographical conditions have furnished not simply the crises which necessitated clothing, but also the materials which furnish clothing. These materials have varied widely, and of course have influenced the pattern or form of the clothing.

Materials Used for Clothing

The skins of animals were probably the first materials used in the making of clothing which amounted to anything. Primitive man, we remember, was a hunter, and therefore had available for his use almost from the earliest times the skins of the wild animals which he killed in his hunting. The need of protection, as well as his desire for adornment, must have led him to utilize these skins for clothing to some degree at a very early date. The skins of animals have, of course, continued to remain an important material for the making of clothing even down to the present time. In the tropics, and to some extent in the temperate regions, other materials for clothing were also early made use of, such as the leaves of plants and the bark of trees. Even today we find whole tribes in Africa that know hardly any other clothing than bark which has been hammered and rendered soft and pliable. Our own Neolithic ancestors in northern Europe also frequently used bark for clothing. With the advent of basket making and rug making, vegetable fibers of various sorts began to be utilized in the making of clothing. We have, at a very early date in Neolithic times, the use of flax. Then came, in more southern lands, the use of hemp and cotton. Even earlier had come the weaving of wool and other animal fibers. The later developments of clothing have been closely associated with the weaving of various fabrics from these animal and vegetable fibers.

Let us note the development of clothing among some of the pre-literate peoples. The Indians of Canada and the United States, on account of climatic conditions, generally wore close-fitting garments made from the skins of animals. These were often tanned and made with great care, as well as with considerable adornment. In the southwestern part of the United States grew wild cotton, which was gathered by the Indian tribes of that region, twisted into cords, and woven into garments. This was early practiced by the Pueblo Indians of Arizona and New Mexico, especially by the Hopi, as well as by the Indians farther south. The cliff dwellers and some other Indians of the United States made feather robes by interweaving feathers of birds in a network of cotton cords or cords made from other vegetable fibers. These feather robes of the

Indians of the United States seem to have been made mainly for their utility; but the Polynesians, especially the Hawaiians, made very beautiful feather robes, sometimes from the feathers of humming birds, which were evidently made for adornment, because only the nobility were permitted to wear them.

The Style of Clothing

The pattern or style of clothing thus depends upon a number of considerations. In the more northern climates, protection from the cold is the first consideration, and therefore the garments are usually tight fitting. In milder climates, the garments are more flowing and lend themselves more to ornamental designs. Modesty is a third factor which has affected the pattern of clothing, though it must be acknowledged that even down to the present it has played a part subordinate to protection and adornment. In the actual history of the styles of clothing, these various factors have entered in in varying proportions, according to climate, esthetic taste, and the moral standards of the people. In Europe the two original types of clothing, the close-fitting garments of the northern peoples, and the flowing garments of the southern peoples, have been adopted respectively by the male and female sexes. Probably European women in the Middle Ages adopted the flowing garments of the southern type because their lives were relatively indoor, while the close-fitting garments of the northern type were adopted by the men because they were better fitted for the outdoor life. The flowing garments of the women were better fitted for ornamentation, and rapidly developed various styles, the chief aim of which was beauty. The men at first were not influenced so much, during the Middle Ages, by a tendency to ornamentation in dress; but after the Crusades and the opening of the Orient to trade and commerce, there began luxurious ornamentation in men's clothing also. This reached its acme probably in the eighteenth century, when the gentlemen of the time dressed in most luxurious velvet coats and satin breeches. The French Revolution, with its teaching of "Liberty, Equality, and Fraternity," adopted the simple French peasant's dress as the standard of style for men. Since this style was simple and unornamental, there arose a widespread movement for simplifying dress in accordance with democratic ideas and ideals. Only gradually has this movement, however, affected the clothing of women, whose clothing still shows strong tendencies in the direction of ornamentation and luxury. Probably the movement for simplified clothing would not have been successful among men if the French Revolution had not coincided with the Industrial Revolution, which demanded relatively simple and plain clothing for industrial and commercial efficiency. It would seem probable, therefore, that women's clothing will also tend to simplification and to less ornamentation as women enter more fully into industrial life. Indeed, this tendency has already become visible within the last half-century.

The Trend of Patterns in Clothing

It would seem at first impossible to discern any trend at all in the succession of styles or patterns in clothing. It is usually claimed that no definite tendency can be made out in this succession of styles, except the craving for mere change and variety. However, there seems to be, temporarily at least, a strong trend toward more sanitary, that is, more rationally protective clothing. This is seen not only in men's clothing, but also in the disappearance, temporarily at least, of the tight bodice among women. If clothing were completely rational, it would of course be not only sanitary, but adjusted to occupation. Beauty and modesty are, of course, factors which have a rational place in clothing, though their place should be subordinate to the protection of the body and to occupational utility.

It may require the eye of faith to see any such trend in human clothing. If we consider the matter of bodily decoration in connection with clothing, the general trend of culture in this regard may become more visible. Indeed, perhaps *no single feature of culture shows more clearly the trend of cultural evolution than bodily decoration.* Bodily decoration is, of course, of two sorts: first, the kind which directly alters the body, which in a broad sense we can term *mutilation;* and second, the kind which attaches various things to various parts of the body, which we may call *superficial ornamentation.* We have already seen that this latter sort of bodily decoration is virtually a part of clothing. We shall therefore consider first the matter of bodily mutilation.

Bodily Mutilation

Bodily mutilation is unknown among the animals below man, because they have not sufficient intelligence to practice it. Among human beings it apparently appeared in Paleolithic times, for we find outlines of human hands in the caves of Europe which seem to indicate that one or more fingers had been amputated. This would seem incredible if we did not know that it was a common practice among many peoples low in culture, as, for example, the Bushmen of Africa, as well as some American Indians. We must remember that both hunting and war left upon the individuals that participated in them certain mutilations and scars that were prized as marks of prowess, and were considered even to enhance the looks. If bodily mutilation did not occur in this natural way, it was quite common to bring it about deliberately. Among the Australian aborigines, boys upon entering puberty have several teeth knocked out in the initiation ceremonies which are supposed to make men of them. A number of African peoples and some American Indians sharpened their teeth to imitate those of animals. Scars on the breast and face are quite common from fighting, and many peoples inflict such scars purposely. It should be remembered that, till very recently, German university students prided themselves on having several gashes or scars across their faces to indicate their prowess in the duel. The motive in such mutilation seems to be to indicate that the person has functioned socially in a certain way which he regards with satisfaction; but these mutilations come in time to have an esthetic value also, and it is felt that they improve the looks of those who exhibit them. This may be difficult for us to appreciate, and it shows how much a matter of convention esthetic, as well as moral, standards can be.

Probably one of the mutilations which we have most difficulty in appreciating is the deformation of the skull. This was practiced until very recent times in about a dozen different places in the world. These places, as we have seen, were often far separated from one another, and as the style of deforming was different in different places, we have, as we have already seen, no right to assume that this practice spread from a single center. In general, however, the practice seems to have been directed toward the exaggeration of the racial tendency. Thus, long-headed people deformed their skulls in such a way as to make them appear more long-headed, while round-headed peoples deformed theirs in such a way as to make their heads appear shorter and more pointed. This tendency in bodily decoration to exaggerate the characteristics of race or sex is very noticeable, and may be observed among practically all peoples who try to modify their bodily traits. The motive for deforming the skull was undoubtedly esthetic in the large sense of the word. In other words, it was done largely for looks, and after persisting for some time, became a customary style and a group mark, just as do our styles at the present time. The practice is probably thousands of years old, but it persisted until very recently among some French peasants. This example shows the tendency of irrational practices to persist in human society, when once they become established as customs. There can be no doubt that the practice was absolutely irrational, for although it did not injure the mentality of the individuals who practiced it, it did no good. It will be noted also that the practice did not result in any inherited change in the human body. It was transmitted only socially or traditionally.

There are certain types of bodily decoration that involve and combine the two methods of mutilation and superficial orna-

CHAP. X

mentation. After trinkets were made or picked up, there was the problem of finding the means by which they might be fastened or attached to the body. Often this was done without mutilation, as in the case of the necklace, the anklet, and the bracelet; but very often the ears were pierced, or the nose, or the lip, in order to attach the trinket. While we regard the piercing of the lip and the nose as marks of barbarism, ear-piercing has persisted more or less down to the present time. After their first introduction, these practices developed as "good style" until they became compulsory and universal in the group. Thus, among the Botocudos of Brazil and among some of the Indians of the American Northwest, it was the universal practice to insert something in the lower lip. The lower lip was pierced and at first a small plug was inserted. These plugs were gradually increased in size until, in some cases, discs from three to six inches wide were inserted in the lower lip. Of course, it was believed that this added much to the appearance of the individuals practicing it.

Superficial Bodily Decoration

A very common practice in the way of the superficial decoration of the body has been the painting of the body in various ways. Painting, to some extent, is found among very primitive peoples, such as the Bushmen of South Africa and the Australian aborigines. Perhaps its highest development among barbarous peoples was to be found among the American Indians, who were very fond of painting the body in various ways to make themselves look more terrible to their enemies and sometimes more pleasing to their friends. We know also that our Cro-Magnon ancestors in Europe were very fond of painting their bodies, because we find the paint in the form of red ochre still adhering to their bones. In primitive times it seems to have been more largely the men who practiced the painting of the body. It was apparently not until much later that the women took up the practice, though some painting by women is frequently found in those groups where the men commonly practiced it. The motive, again, seems to have been esthetic in the broad sense. This esthetic element was refined when the painting became more confined to the female sex. Among practically all peoples, outside of the negro race, red cheeks are found among young girls, and painting has been used to enhance this sign of youth by the women of most peoples advanced in civilization from immemorial times. There have, of course, been fluctuations in the practice, but we know that painting was extensively resorted to by the women of later classic times. The Church opposed the practice, but it was common through the Middle Ages and apparently reached the height of refinement in the eighteenth century, when both ladies and gentlemen who appeared in polite society were powdered and painted to the last degree. The French Revolution again destroyed the practice for men, but it persisted more or less throughout the nineteenth century among the women, and still persists among European and American women to this day.

Vanity in Clothing and Bodily Decoration

It would seem at first that the only conclusion which can be drawn from these facts of bodily decoration and mutilation is that man from savagery to present civilization has always been ruled by vanity, and that the prospect is for a continuance of this irrational rule with perhaps occasional unaccountable fluctuations. Many have drawn such a conclusion from these facts. If by *vanity* is meant the love of social approbation, then it must be admitted that it is one of the strongest motives at work in the whole of culture. Bodily adornment and mutilation have grown out of the desire to be looked up to and noticed, to be respected and honored, by one's group. But this desire (we may call it "vanity" if we choose) is in its expressions subject to control by culture. It may manifest itself in the crude, irrational experiments of the savage and the barbarian. But it is also capable of manifesting itself in accord with the highest moral, rational, and esthetic standards. Man's love of social approbation undergoes in its manifestations cultural transformation just like all his other natural impulses. Hence general cultural evolution does control even bodily decoration. We must remember, however, that beauty, like rational utility and social utility, is a part of the end aimed at in the development of culture.

Man has always striven for personal beauty, and it is not rational to suppose that adornment of the person in all respects will be abandoned. Cosmetics may have a rational place even in the highest civilization; but there can be little doubt that the trend of our culture is to minimize artificial bodily adornment, and to do away with bodily mutilation altogether, except in those rare cases where it serves some rational utility, as in the cutting of hair and in shaving among men. We are coming to see that the natural human body, when developed to the highest degree of health and strength, has a beauty which art cannot add much to. Moreover, the trend of our ethics is to condemn deception and concealment, or efforts to make the body appear very different from what it really is. Hence the mutilation of the body has been gradually lessening during the period of civilization, and the superficial ornamentation of the body has in that time tended to greater refinement. We have gotten rid of tattooing, tight lacing, and foot-binding; we may hope to get rid, in time, of extravagant jewelry and other irrational forms of superficial bodily decoration.

Referring again to the general curve of culture, we find that it illustrates the trend in these matters which we have discussed. Indeed bodily mutilation illustrates this curve as clearly as any cultural trait. Man began, like the animals, with a natural, unmutilated body. But as he came to consciousness of himself and got power, nothing was more natural than that he should practice experiments in the way of altering the body. These apparently began in the stage of savagery, but many of the more striking, such as head deformation, did not develop until the stage of barbarism was reached. However, the superficial decoration of the body through painting, tattooing, and loading it down with ornaments reached its acme in the stage of semi-civilization.

The Curve of Bodily Mutilation

Gradually, man has seen that these experiments in the altering of the human body were crude and irrational. Gradually he has learned that the rational thing is to develop and perfect the body through the maintenance of racial and individual health. Except for those minor alterations which conduce to this end, we have every reason to believe that the mutilation of the body will cease, and man will end as he began, with an unmutilated body. Moreover, only such bodily decorations will survive as are in accord with rational utility and beauty. Thus we have our curve:

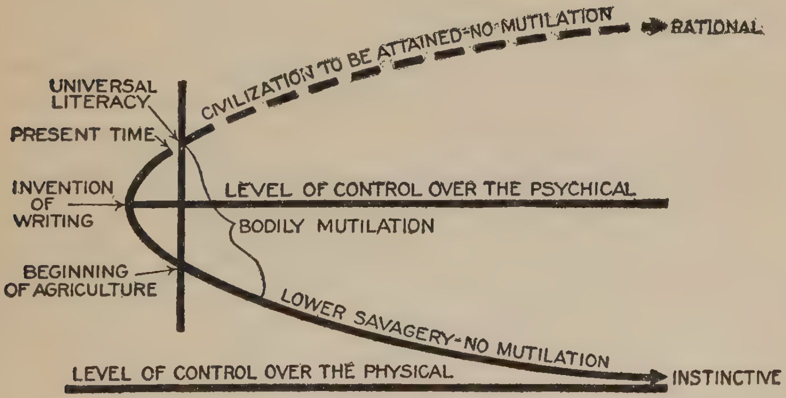
CIVILIZATION TO BE ATTAINED-NO MUTILATION
RATIONAL
UNIVERSAL LITERACY
PRESENT TIME
INVENTION OF WRITING
LEVEL OF CONTROL OVER THE PSYCHICAL
BODILY MUTILATION
BEGINNING OF AGRICULTURE
LOWER SAVAGERY-NO MUTILATION
LEVEL OF CONTROL OVER THE PHYSICAL
INSTINCTIVE

FIGURE 8
The Curve of Bodily Mutilation

The Meaning of the Curve

It may be asked if this means that man began cultural evolution with a naked body, and will end with a naked body. Of course, such a question would indicate a failure to understand what we are trying to show, that *cultural evolution is a passage from adjustment on an animal plane to adjustment upon a rational human plane.* The final adjustment of man will not, therefore, duplicate his primitive adjustment, but it will represent adjustment on the human plane. Man with respect to clothing and adornment, as well as with respect to all other cultural traits, is gradually learning by trial and error what rational adjustment means. Rational adjustment with respect to clothing would seem to imply adequate protection of the body from climatic conditions. It would also seem to imply the protection of the sense of modesty and regard for beauty of appearance. These three trends in the development of clothing, which we may call rationalization, socialization, and beautification, seem to be present more or less in the evolution of all cultural traits. They are not goals given in advance, however, but are gradually defined by the process of experimentation. The rationalization of clothing is found in its development to afford a maximum of individual protection and convenience. The socialization of clothing is its rationalization in the interests of society as a whole, so that it will conserve modesty and not involve unnecessary waste or luxury. Evidently the beauty of clothing should be subordinated to its rational and social utility, if it is not to be destructive of modesty or economically wasteful. It is a mistake to regard beauty as the chief end of cultural development. It is an end, but subordinate to rational and social utility. The tendency of clothing and of bodily ornamentation to take account of beauty alone has been condemned by all religious and ethical thinkers of all the higher cultures of mankind.

Thus the curve for clothing will be the same as for other cultural traits if we understand that man's adjustment to clothing must be an adjustment on a human plane such as to conserve the higher social values. It has been as difficult for man to learn to clothe his physical body properly as it has been, so to speak, for him to learn to clothe his mind properly. Rationalization, socialization, and beauty are the three goals toward which he has been stumblingly groping for all his culture. This was first perceived by the Greek thinkers who formulated the ends of life as truth, goodness, and beauty; but the Greeks, a nation of artists, apparently made the mistake of placing beauty first among these ends. It is evident, however, that man must first know the truth, then live the right, and finally seek the attainment of beauty. The adjustment which these three goals represent can only be attained to by a slow process of learning. Even the most civilized portion of our human world is only beginning to comprehend what rationality, morality, and beauty in clothing really mean.

SUGGESTED READINGS

Ratzel, F.—"History of Mankind," Vol. I, pp. 93-106 (in Thomas, *Source Book for Social Origins*).
Deniker, J.—*The Races of Man,* pp. 170-184.
Handbook of the American Indians, articles on "Clothing" by Hough, "Adornment" by Fletcher, and "Painting" by Holmes.
Hastings, J.—*Encyclopedia of Religion and Ethics,* Vol. 5, article on "Dress" by Crawley.
Hayes, E. C.—*Introduction to the Science of Society,* Chap. XXVII.
Sumner, W. G., and Keller, A. G.—*The Science of Society,* Vol. III, Chap. LX.
Wissler, C.—*The American Indian,* Second Edition, Chap. III.

CHAPTER XI

THE DEVELOPMENT OF HOUSING

CHAP. XI

IN a certain sense, houses may be thought of as enlarged clothes, for into the house enter the same elements of protection, ornamentation, and modesty as enter into the making of clothing. The primary purpose of houses was, of course, protection from the physical environment or the elements. However, beauty, or ornament, and modesty, or privacy, have also played important rôles in the development of housing.

Use of Natural Shelters or Caves

The earliest men had of course nothing that we could call houses, but they probably made use of wind shelters of brush and reeds, of rock shelters, and of natural caves. There never was a universal "cave epoch"; but where caves abounded, they were early made use of. Probably very early, also, artificial caves or dugouts were constructed. At least, we find some of the lowest Bushmen living in artificial caves dug out along the banks of rivers. The use of caves and of wind shelters made of brush naturally suggested certain patterns for the construction of artificial dwellings when men began to make these. It is probable that the construction of artificial dwellings began very much later than the making of clothing, although we find man in Europe resorting to the caves shortly after he began the making of clothing. It seems probable, therefore, that the construction of artificial dwellings began in later Paleolithic times. There are some drawings of Paleolithic age which seem to indicate that such dwellings existed, at least in the Magdalenian epoch. However, many savage peoples make little or no effort to construct artificial dwellings. Thus, the Bushmen get their name from the fact that they lived in the bushes and used them as wind screens by tying them together at the top or by piling them up. Even the Australian aborigines did but little more. Hence, the most primitive shelters of men involved very little or no art.

The Rudest Huts

"In the depths of Brazilian forests," says Tylor,[1] "travellers have come upon the dwellings of naked Puris, which are not even huts, only sloping screens made by setting up a row of huge palm-leaves some eight feet long, leaning against a cross-pole. Being put up to windward, this shelters the lazy Indian as he lolls in his hammock slung between two trees, and with the dense foliage overhead life is not comfortless on fine days, though in bad weather the family and dogs have to crouch defenseless round the wood fire on the ground. Even in these tropical forests, what is generally met is a real hut, though it may be such a rude one as the Botocudos make with these same great palm-leaves, sticking a number of them with their stalks in the ground in a circle, and bringing their points together, so as to form a roof overhead. The Patachos go to work more artificially, bending together young growing trees and poles stuck in the ground, so that by binding their tops together they form a framework which is then thatched over with large leaves. Much the same lesson in primitive architecture may be learnt from the natives of Australia, among whom a party camping out will be content to set up a line of leafy boughs in the ground to form a screen or breakwind for the night; but when they take the pains to interlace such boughs overhead, the screen becomes a hut, and where they stay for a while they will make a regular framework of branches, covering them in with sheets of bark, or leaves and grass, and even laying on sods or daubing the outside with clay." This quotation shows us the origin of the rudest huts or houses, and it also suggests how housing patterns got started.

---

[1] Tylor, *Anthropology*, pp. 230-231.

The Long House and the Round House

In building a wind shelter, it was natural to pile branches against a rock or against the low limb of a tree, or against a pole that was horizontal and supported by two sticks. This gave a shelter which was the beginning of the development of the long house. The cave or dugout, on the other hand, seems to have furnished one pattern for the round house. Perhaps the best indication of this is to be found in the houses of the Eskimos. Their permanent houses are built of sod, stone, or driftwood piled up in a circle until they are completely covered. Then a long approach is made by a passageway built in similar fashion out of logs, sod, and stone. The whole construction closely resembles an artificial cave. The temporary snow houses of the Eskimos are also circular and built in much the same way, except that they sometimes lack the approach.[2]

The round house seems also to have developed out of the practice of tying bushes or reeds together at the top and then spreading over them a skin to protect them from the elements. The typical American tepee was but a development of this pattern; for the tepee of the plains Indians was ordinarily made by setting up poles in a conical form and then stretching skins over them. In tropical countries, however, the poles were frequently thatched with leaves or reeds, and then sometimes these were covered with mud or clay. In Africa, such round houses were frequently built of sod or reeds and mud, nearly in the form of the traditional beehive. These houses were very common in equatorial Africa.

---

[2] "The snowhouse we all know so well is universal from east to west as a temporary residence, which in summer gives way to a small skin tent. Its long, low, tunnel-like entrance and internal arrangement is the same as that for the earth-covered type of Alaska, and both together may be regarded as revealing the characteristic Eskimo house concept."—*The American Indian,* by Dr. Clark Wissler, p. 112.

Dome-shaped houses built over a light framework of poles were also common among the Indians of North America. Such dome-shaped huts afforded comparatively little space for those who lived in them, though warmth was gained by the use of barks, skins, or sods. Here we may notice that savage and barbarous peoples quite generally developed very strict rules of etiquette in regard to the conduct and behavior of their members inside of such closely crowded houses. Each member of the family had a fixed place in the house. Every man, every woman, every child had an appointed place for sitting, standing, and sleeping. A guest was expected to wait until he was asked to sit in his appropriate place. Anyone who entered the house carelessly and took his seat anywhere immediately met with disapproval. Thus it was possible even in such crude houses to maintain a measure of sanitation and decency, according to the standards in vogue among the peoples who used them.

The North American Indians built many more substantial houses than those which we have just mentioned. Famous among these was the long house of the Iroquois Indians. The house consisted of a framework of poles, covered with great sheets of bark. It was rectangular in shape, several times longer than it was broad, with vertical walls and a pitched roof. There was a doorway at either end. The house was divided by partitions into sections. The partitions did not extend entirely across the house, but simply marked out little stalls. The house was occupied by many individuals, all of one clan or kinship group. Each group of persons most closely related to each other, or family, had its separate stall and its own fireplace. As in the tepees and dome-shaped houses, strict rules of etiquette had to be observed by the many individuals living in such a house.

Pueblo Houses

Another famous house among the American Indians was the pueblo house of the Pueblo Indians living in our Southwest. Originally these houses, which were built of adobe brick, seem to have consisted of a single cell or room; but far back in ancient times they began to be arranged in lines or series, so that they made great houses or pueblos, rising to a height of several stories. As each story was set back from the story just beneath, they presented a terraced form, and looked like sections of a great flight of steps. If a building had three stories, there were three lines of rooms below, one line before another. On the second story there were two rows of rooms, and the flat roof of the front rooms of the lower floor served as a platform to them; on the third story was a single line of rooms, with the roof of the front rooms of the second story as their platform. Access from one story to another was gained by ladders. In the oldest pueblos there were no doors or windows on the lower floor. One climbed to the roof of that story by ladders and descended to the room by other ladders through trap doorways. Here then we have a fairly elaborate architecture, which is interesting because it shows how the more complex forms of architectural structures have arisen by putting together simpler forms.

Influence of Construction Materials and Situation

The pattern of the house was of course influenced by the material of which it was made, and also by the environment in which it was built. Different types of houses developed which were adjusted not only to human needs and to their geographic environment, but also to the material available for their construction. Thus in some parts of the world where only stones were available we find huts and houses built wholly of stone. In our Southwest, as we have just seen, on account of the arid climate, adobe bricks were used by the Pueblo Indians to build their pueblos. However, when these Pueblo Indians were forced to take refuge in cliffs and canyons to protect themselves from warlike intruders from the North, they built their celebrated cliff houses, which were frequently built of stone, and which, instead of following the rectangular cell form of the typical pueblo, were built in circular form with round towers and a castellated appearance. When the Pueblo Indians left their cliff dwellings and returned to the plain, they again took up the rectangular form of house, and no longer employed the circle and the tower. This illustration shows plainly how geographic conditions and available materials may influence housing patterns.

Persistence of Primitive Patterns

Just as in physical tools, in clothing, and in all forms of material culture, it is remarkable how primitive patterns persisted in houses and in architecture, no matter what the material. This is strikingly illustrated in Chinese and Japanese houses, the pattern of which is quite evidently derived from the primitive Tartar tent. The projecting sticks under the roof of the Japanese house of today still suggest the primitive tent poles. The Chinese and Japanese temples, or houses for the gods, were but continuations of the same pattern. The original Egyptian house seems to have been of the long type, with the roof supported by columns of reeds. When the Egyptians began to build their temples in stone they still felt it necessary to make the columns resemble the twisted reeds which had supported their primitive houses.

The Origin of Architecture

The attempts to beautify the structure of the house, and especially the structure of the house of the gods, resulted in architecture. We can readily see why the architectures of different peoples vary so considerably, because the architecture of each people has in the main developed the primitive pattern used in the houses of that people. Greek architecture, of course, is no exception. The pattern of the Greek temple was borrowed directly from that of the Greek house. Even Gothic architecture was probably a development from the style of tent used in northern Europe. After all, architecture has had but a few fundamental themes to develop. The combination of patterns has given new styles of architecture in different ages, but it may be doubted whether the most perfect types of architecture thus far developed can be surpassed. We still turn to classical and to Gothic models because we can invent nothing better.

The Trend of Housing and Architecture

The further development of housing and architecture would seem to be in the way of rational and social utility. Though nothing so markedly affects the life of the people as the material surroundings of their house life, still only a small part of the world's population is even yet adequately housed. We still have, even in the most advanced nations, unsanitary tenement districts and slums in our large cities, as well as very primitive houses for the mass of our rural population. Just as in the case of clothing, ornamentation has outstripped social utility in our houses. We can scarcely say that socialization has proceeded very far when such a large proportion of our population still live in overcrowded, unsanitary conditions, while a few families have mansions with from fifty to one hundred rooms. Of course, beauty has its place in the rational development of the house, but it should be subordinate to social utility. Luxury and over-ornamentation in housing is as injurious to society as luxury and over-ornamentation in clothing. The curve of culture here must again be in the direction of rational social adjustment. We would see this more clearly if we had already entered upon a stage of true social enlightenment.

SUGGESTED READINGS

Handbook of the American Indians, article on "Architecture" by W. H. Holmes.

Deniker, J.—*The Races of Man*, pp. 160-169.

Hastings, J.—*Encyclopedia of Religion and Ethics*, Vol. 1, article on (American) "Architecture" by Gray.

Tylor, E. B.—*Anthropology*, pp. 229-336.

Wissler, C.—*The American Indian*, Second Edition, Chap. VI.

CHAPTER XII

THE DEVELOPMENT OF THE FINE ARTS

CHAP. XII

IN the study of clothing, bodily decoration, and housing, we have already come into contact with certain elements of art. We are here using *art* in the sense of the fine arts. Art in this sense of the word, however, is not to be separated from art in the broad sense of artisanship. In this latter sense art is inseparable from human culture. Man has always been an artist in the sense of constructing artificial things. Almost from the first also, he began to decorate the things he made, so that art in the narrow sense is but an elaboration of certain tendencies which are inherent in all culture. We see, then, that in one sense all culture involves an element of art.

The Origin of Art

It is often said that art is foreshadowed in the behavior of the higher animals below man; for example, by the birds in the construction of their nests and in their songs, and by the bees in the making of their symmetrical honeycombs. But if we can speak of art as existing among the animals below man, it is in a very different sense from that in which we have just used the word. It is certain that the animals make nothing artificial. They show no artisanship and hence have no culture. But they seem to have esthetic sense. Students of animal behavior have at least frequently attributed this to them, although most biologists are of the opinion that Darwin carried this idea much too far when he made the esthetic sense operative through sexual selection, and made it account largely for the coloring of animals and the song of birds. It seems true, however, that the esthetic sense begins below the human level, and that this explains why man began very early to decorate all that he made as well as his body. But there has always been this difference between the so-called art of animals and the art of men. The so-called art of the lower animals is not purposive; the bird's nest and the honeycomb are not the results of behavior patterns in the minds of their makers. Art among men, so far as we know, on the other hand, is always purposive; it is always the result of a pattern in the mind of the maker. It is the objectification of the mental pattern in the mind of the artist.

Art and Play

Art is closely related to play and amusement, and it has been associated with these throughout its development. The characteristic of play is that it is an apparently non-useful activity, that it is action for its own sake. In play the satisfaction comes as a rule from the activity directly, and this is the case also with art. Strange as it may seem, this statement is not inconsistent with the fact that both play and art are largely made use of for social control, and that their development has been largely influenced by the fact that they are instruments of social control. While play and art may have a satisfaction for their own sake, their social utility is so very great that this has powerfully influenced their development. We have already pointed out that esthetic beauty is one of the main controlling factors in the development of culture, though probably subordinate in social value to rational and social utility. We can scarcely doubt that art from the first has been a form of control over life, not simply an effort to satisfy the individual's esthetic sense. Among all peoples art is used to influence human behavior. We see this still today in all the forms of modern art, whether literature, painting, sculpture, or music. This is so evident that probably more than one social philosopher has agreed that if he could write the songs of a people he would not care who wrote its laws. Of course, there are differences of degree in which works of art exercise social control. Some have more power of social inspiration than others, but, regardless of intensity, all the fine arts exercise a far-reaching and subtle control over the whole cultural and social life.

The Definition of Art

One reason why the fine arts are able to do this is evident. It is because art is a sort of universal language. It communicates certain feelings and ideas to all the members of a group who come into contact with it. It is possible, indeed, to say that art is the language of the emotions, just as speech symbolizes ideas. This may not be quite psychologically correct, but it brings out an important truth, namely that the fine arts are essentially, on their social side, a means of intercommunication, and that what they intercommunicate is largely feeling or emotion, though of course they may communicate ideas also. If art is a form of social intercommunication, or rather can be used as such, then we see at once how art may be used as a powerful means of social control; for intercommunication, as we have already pointed out, is the main organ of social control. The element of individualistic satisfaction of the esthetic sense, of course, exists in art also, and is one of the main reasons why it can be used as a most subtle form of social control. It controls without the control being obvious, as a rule, to the individual. It is of course not our purpose to go into the psychology or the philosophy of art; but these elementary facts must be understood before we can understand the part which it plays in social and cultural evolution.

The Kinds of Art

There are various kinds of fine arts; the graphic or pictorial arts, the plastic arts, the musical arts, and the literary arts. Through all the arts runs the element of design. The most primitive designs in all the arts, as Holmes points out in his discussion of design in ceramic art,[1] are *adventitious* or *imitative*. The earliest designs were copied from nature and natural objects or were the result of mere accident. In copying the objects of nature the primitive worker, with very crude ideas of proportion and representation, often copied them very crudely and inadequately, just as children do at the present time; and this accidental distortion of forms gradually led to a system of symbols, each representing some object or process of nature which had been misrepresented by some relatively unskilled artist. Thus there were at the beginning no arbitrary geometrical or conventional designs. These latter came into existence only through a process of development; but all the earlier forms of art had designs which were the result either of copying natural objects or of accident. The combination of imitative and adventitious designs gave rise to the *inventive* design. Thus in comparatively recent times the invented design became common in art; but invented designs have as their basis the natural objects from which the earliest designs were copied.

---

[1] See Thomas, *Source Book for Social Origins*, pp. 568-576.

The Development of the Pictorial Arts

The *graphic* or pictorial arts began very early with all sorts of drawing and design work. We know of no peoples that do not make free use of this form of art. Thus, the Bushmen of South Africa and the Australian aborigines are famous for their drawings. The rock paintings of the Bushmen, especially, seem to represent a high degree of artistic skill, especially in the representation of animals. In general, primitive peoples do not seem to show much skill in representing the human face and form, although they not infrequently attempt it. How far back pictorial art goes in human culture it is impossible to say, but we know that it was already well developed in Europe in Aurignacian times. The art of this period was mainly outline drawing in one color. But by Magdalenian times it had developed into polychrome painting, especially of animals. These paintings of animals on the walls of caves in Paleolithic times were not surpassed until thousands of years later. We find among them some wonderful examples of copying objects in nature, some going to the extent even of representing motion, as in the case of the famous eight-legged pig, to represent a pig running. For reasons which we do not understand, this relatively high pictorial art of the Upper Paleolithic disappeared, and the art of Neolithic times was crude in comparison. It was not until historic times were reached in Egypt that painting again rose to as great height. Here we have illustrated one of those rhythms in cultural development which are so important to understand if we are to understand the whole process. From Egypt painting seems to have spread to the Ægean civilization, then to Greece and Rome, where it reached another maximum in the great frescoes and mural paintings that adorned the walls of Greek and Roman buildings. Then there was another decline from which painting did not recover until the advent of the Renaissance. In the later Renaissance the work of Raphael and Michael Angelo seemed to mark a climax which could hardly be surpassed; but another culmination of painting was witnessed in France in the work of the great French artists of the nineteenth century. At the present time, while some of our painters are striving to maintain and develop the great traditions of the past of their art, many have gone into such new experiments as post-impressionism, futurism, and even cubism.

Rhythms in Art

There may be difficulty in explaining fully these rhythms in the development of pictorial art. It is evident, however, that pictorial art, like all culture, proceeds by experimentation, or by the method of trial and error. If we could survey the whole history of painting, this would become even more evident. Many other things enter in, of course, such as the general social condition of the people. A fine art like painting requires leisure, and at the same time its advancement depends upon practically all the other conditions of culture. Political conditions, such as war and peace, also greatly affect it. Finally, it is to be noted that in the fine arts it is much more difficult to maintain a standard than in the practical arts. In the practical arts and in physical science, the immediate utility of a thing can be tested not infrequently by more or less definite measurement; but in the fine arts it is not so. They are tested only by the taste of their public. This means, in effect, that we have as yet no objective tests for the fine arts. Hence we should expect what we find: that, of all phases of culture, they present the most extreme fluctuations in their development. Like clothing, they are subject to fads and fashions, and there seems to be no good way of checking them up. It seems probable that the present low state of the fine arts in Western civilization is due both to materialism and to the advent of democracy. Materialism has drafted the energies of our society into industrial and economic channels. The advent of democracy has adversely affected the fine arts, because the standards of the masses have not been such as to encourage a high level of artistic achievement. The aristocratic society of earlier centuries was more favorable for the encouragement of those standards.

Art in Cultural Evolution

In spite of the fluctuations in the fine arts, they nevertheless exemplify our general theory of cultural development. That the trend in the fine arts through the centuries has been toward increasing beauty, only the profoundest pessimist or skeptic would doubt. But esthetic beauty, when made the sole end of art, it cannot be denied, often obscures the rational and social values which we rightly associate with the highest art, and the realization of which we have suggested as the goal of the cultural process. It must be admitted that beauty when pursued by itself is a disturbing element in the development of culture. It is only when its pursuit is combined with the pursuit of truth and right that it becomes a positive force in cultural evolution. Culture is, after all, not a play of fancy, but an apprehension and appreciation of reality. Its strength, therefore, comes from its elements of truth and right, and esthetic beauty comes in only to add a pleasing element. But there is no conflict between these goals in culture if they are kept in their due relation, and if we see that mere esthetic beauty is primarily a matter of pleasing the senses, and that the highest human art should have other ends. A very slight analysis will show that the highest art, because it is a form of language, must include elements of rational and social value as well as beauty.

Beauty in art is a matter of sensuous impression, produced by form, color, sound, and the like. Evidently, to produce this sensuous impression certain psychological principles must be observed. A deviation from these principles would mark the work as irrational in the sense that it did not achieve what it aimed at. But it may be asked whether there is any trend toward rationality in art in the higher sense of conveying to the mind of the beholder an intelligible meaning. It must be admitted that esthetic appreciation, which is the first thing aimed at in art, is not always consistent with rationality. Sometimes irrationality seems better to secure a pleasing sense of impression. Not all esthetic appreciation is rational. The higher forms of esthetic appreciation, however, are rational, since they seek for a beauty which is intelligible and so in harmony with the rational. Great works of art are therefore more than merely beautiful; they are shot through with ideas. They are not the mere result of seeking for esthetic beauty alone, but they express the highest intuitions of the intelligence.

Practically the same thing may be said regarding the question whether there is a trend in art toward the socially ideal or the moral. We find the greatest works of art to be highly moral. They elevate as well as universalize the feelings and emotions. In some cases they convey great moral lessons. The trend in culture has been to demand that art should lift men rather than drag them down. This is a demand that art be social and moral in its aim. There are, of course, fluctuations.

The close alliance between the arts and social amusements may at times tend to degrade art, though it is quite obvious that one of the ways to elevate social amusements is to put into them more of the element of art. Again, the commercialization of art tends to rob it not only of its rationality and moral quality, but even of its beauty. Many artists take up fads with the hope of pleasing the public for the sake of monetary remuneration. Thus the arts in our modern democratic times have become subject to certain fads, very similar to the fashions in clothes. In general, it would seem that in all the fine arts we are now experiencing one of those periods of experimentation (trial and error) to which culture in all of its forms is often subjected. We must not judge the general trend in the evolution of the fine arts by aberrations of the present. It is more than possible that this very period of experimentation will point the way to the development of greater beauty, rationality, and social utility in the fine arts than the world has yet known. Certainly, if we look at the trend of development since the Stone Age, we will have no difficulty in seeing that the trend of the fine arts has been toward increasing rational and social utility as well as toward increasing beauty. This will become evident from the survey of the other forms of art. Art, like everything else in culture, tends to perfect itself with reference to all three of these essential factors in cultural value.

The Development of the Plastic Arts

We shall pay but slight attention to the plastic arts. It might seem that the plastic arts would most naturally begin with pottery or work in clay, but this is not quite certain. The oldest forms of the plastic arts which we know are bone and ivory carvings from Paleolithic times. Again, as in the case of painting, it was the animals which were most beautifully represented in these Paleolithic carvings. The representations of the human form and face were few and unsatisfactory. It would seem, however, that plastic art was already beginning to use clay to model various forms, as is shown in the wonderful clay models of two bison found in the cavern of Tuc d'Audoubert. With the coming in of pottery in Neolithic times, clay images became very common, especially in the Orient. The Egyptians carved many of their figures out of wood, which suggests that wood-carving was also a very ancient form of plastic art. The later and more notable Egyptian statues were carved from hard rock. The Ægean civilization took up the sculptor's art and began to develop it, making use of white marble. From the Ægeans the plastic arts descended to the Greeks, who carried them to as great a height of perfection as the world has known. The Renaissance saw another climax in the plastic arts, and the nineteenth century still another. It is unnecessary to trace the development of architecture which went along with the development of sculpture. We have already briefly touched upon that in another chapter. It is sufficient to point out in connection with the plastic arts that we see again the trend toward perfection, but with the rhythms of development which we find in all phases of culture.

The Development of the Musical Arts

The origin and development of the musical arts illustrate the same general principles as those of the other arts. There is this difference, that the graphic and plastic arts appeal primarily to the eye and modify the environment permanently, while the musical arts appeal primarily to the ear and modify the environment only temporarily. On this account their development in prehistoric times is more difficult to trace. However, it seems certain that the dance is the mother of the musical arts. In the primitive dance we find the first form of rhythmic movement, and the chant which accompanied it was probably the earliest form of music. The development of the primitive dance also affected many other arts, because the dance imitated animals and various forms of human behavior. It thus early became symbolic and was the mother of pantomime and the drama as well as of music. Thus it greatly influenced the development of the literary arts. The dance has existed among all peoples, though among some peoples it is confined to only one sex. It has existed in many diversified forms, many of which, from our point of view, have little beauty or intelligibility. Among all peoples, however, the dance is used as a means of socialization, though of course sometimes in a very narrow way with reference to what we would consider ignoble social ends. We find among various peoples three main forms of the dance: (1) before wars, to arouse the emotions and excite warlike tendencies; (2) before religious ceremonies, to excite religious emotion; (3) before marriages or sexual festivals, to excite sex impulses.

The Forms of the Dance

We have mentioned these leading forms of the dance in the reverse order of their development. The war dance was apparently the last to develop and is not found among all peoples. It was very common among the North American Indians and is also common in Africa. The war dance usually continued until the warriors taking part in it reached a frenzy of excitement. The chanting which accompanied it gave rise later to martial, warlike music. Religious and ritual dances are very ancient and are known in some form among most peoples. The corroborees of the Australian aborigines were dances mainly of this sort. Most of the folk dances of European peoples were survivals of ancient religious and ritual dances. The sacred dances of the Levites among the ancient Jews were of course of this character. Dancing continued as part of a religious ritual in the Christian Church down to the eighth century. Sacred music is a direct descendant of the ritualistic music.

The sex dance is the most ancient form of dance, and practically the only one which survives among European peoples at the present time, though efforts have been made to revive the ancient ritual folk dances. Sex dances exist among savage and civilized peoples alike. Among some they are performed solely by the women. This is true of the civilized Asiatic peoples in general, and also of the Polynesians, whose hula-hula dance is a good illustration of the primitive sex dance. Among most civilized peoples, however, the sex dance is participated in by both sexes, and has now become for the most part a mere amusement rather than an art. Like clothing and bodily decoration, it is now subject to various styles and fads, mostly introduced by dancing masters for the sake of economic gain. Apparently the dancing art has tended to a minimum rather than to a maximum of artistic development, though there are some attempts to reverse this process. The democratization of dancing has meant its degradation as a form of art.

The element of socialization in the modern dance is quite as strong as it was in the primitive dance, though it may not be on a very high plane. It would seem, however, that there is little beauty or rationality in the dance as it exists in present civilized society. This, however, may be again only one of those rhythms which we find in all of the arts. There is certainly no danger that the dance will die out. The only question is whether it can become again a vehicle of beauty and a symbol of rational ideas. Efforts are being made in this direction, and it is at least probable that, if our general culture continues to advance, the more vulgar and degraded forms of the dance will in time disappear. If this is so, however, the dance must be made something more than a mere form of amusement.

The Development of Music

As we have already said, music sprang from the dance. The dancing of the Australian aborigines is accompanied by chanting and by the beating of a crude drum. Probably the idea of a musical instrument, however, was evolved from the human voice, though we must remember that there are many other sound producers in nature. Apart from the human voice

CHAP. XII

we find three principal forms of musical instruments; percussion instruments, reed or wind instruments and stringed instruments. The percussion instruments and reed instruments were undoubtedly the more primitive, as they are found practically universally among all peoples. One of the earliest of the percussion instruments was of course the drum made by stretching a skin tightly over a hollow log. Perhaps the idea evolved originally from the beating of a hollow log. Reed or wind instruments find their origin in the simple natural pipe of bamboo or other reed which gives forth a sound when the breath passes through it. The drum and other instruments of percussion could not evolve very far, but the simple reed has evolved into our complicated pipe organ, as well as into all types of horns. Stringed instruments were the last to develop. Tylor thought that they came from the primitive bow. The bow and arrow was, however, a comparatively late invention, and if stringed instruments came from twanging the primitive bow, then they developed thousands of years after the drum and the reed. Like the reed instruments, they were capable of very complex development. From the simple bow developed the lyre and the harp, which instruments in turn gave rise to the piano and the violin.

It is quite obvious that the evolution of the musical arts has largely followed the evolution of musical instruments. The musical scale itself is merely a convention based upon the construction of musical instruments. Our heptatonic scale is not found among most uncivilized peoples, nor even among such a people as the Chinese, for the simple reason that their instruments were not adapted to this scale. Thus the musical instrument has even largely determined the forms of singing with the human voice.

It has been said that music is the only art in which man does not copy nature, but this statement is incorrect. The development of the musical arts is controlled by the same general principles that we find in all art. In the development of music, man took his sounds originally from nature, and his earliest instruments were very slight modifications of natural objects. All the sounds in music are either copied from nature, are accidental, or are invented through a combination of the accidental and the imitated. The most elaborate pattern in music (or musical theme) turns out upon examination to be an elaboration of natural and accidental sounds.

As we have already said, it is difficult to trace the early history of music because the writing of music is a comparatively recent invention. Our music, like the rest of our art, seems mainly to have been evolved from Greek patterns. Music received a great development, however, in the Middle Ages in connection with religious ceremonies. Its full development, apparently, did not take place as early as that of the graphic and plastic arts. The climax thus far in the development of our music came in the eighteenth and nineteenth centuries. The twentieth century has witnessed the development of many aberrant forms of music. To some extent these have been imitations of the music of relatively uncultured peoples, such as the negroes of Africa and of our Southern states, the Polynesians, and the American Indians. Music, like the other fine arts, has been going through an age of experimentation, and perhaps it is still too early to determine whether the present aberrant forms, such as jazz, will persist and will form the basis for a new line of development.

The Development of Literature

Closely connected with the musical arts are the literary arts. The original form of literary art is to be found in the primitive songs and myths. Since we know of no people without songs and myths, we may conclude that literature is in a sense a part of the universal pattern of culture. It is a mistaken opinion that literature is found only among peoples well advanced in culture, since there is no people without some oral literature. Probably this oral literature is much larger than we have been led to suppose. Our impression that the oral literature of primitive peoples was very scanty is due to the fact that much of it has not been preserved and has been forgotten. Investigations of the life of some of the most primitive peoples existing in recent times have disclosed the fact that some, at least, of these peoples have an abundant oral literature. Thus the Bushmen of South Africa are generally recognized as one of the most primitive of existing peoples. An attempt has been made to gather and preserve their myths and legends. Keane tells us that the result was no less than eighty-four thick manuscript volumes of Bushman literature. Other investigations into the folklore of other primitive peoples have produced similar results.

Most primitive literature is emotional and imaginative. It is intimately connected with the mythology of the people. Some authorities have maintained that there are no nature songs or love songs in this primitive oral literature; that it is all of a mythological and warlike character. This is, however, a mistake. Nature songs and love songs are not unknown among primitive peoples. Probably the reason why war songs and religious hymns have most frequently come down to us is because they have been best preserved. We must remember that both the war song and the ceremonial religious hymn would probably be more highly valued, especially by those relatively uncultured peoples with which we have become familiar, such as the American Indian. Primitive emotion was probably as varied as our own, and tended to express itself in various forms of spoken language. Primitive poetry especially illustrates the fact which we have already noted, that art is a sort of language of the emotions. Therefore we find among all peoples love songs, nature songs, hunting songs, war songs, and religious hymns.

The songs and myths of the earliest peoples were carried from generation to generation by oral tradition; consequently they frequently became much changed through a long period of time, and most of them were lost before the advent of writing. Only the most striking selections were maintained and perpetuated at all. However, there early grew up among primitive peoples professional bards or singers and professional story-tellers. Thus some of the literature of pre-literate peoples was preserved for us, but usually only fragments. For example, the highly developed dramas of the ancient Peruvians have perished almost entirely; only a few still exist to give us an idea of the perfection reached by these early peoples.

Like all other forms of art, literature, in the sense of *belles-lettres,* frequently so strives for esthetic beauty as to obscure the rational and social values in it. Eminent poets of recent times, like Poe, have even maintained that no sense is needed in words to make great poetry; that poetry is essentially simply cadences of beautiful sounds, not to be differentiated from music. Hence some literary artists strive merely for beauty, neglecting the elements of intelligibility and of social value in literature. It must be said, however, that the greatest literary artists have always paid attention to the intelligibility and ethical teaching of their creations as well as to their beauty. Thus Shakespeare, while he strove for beauty, strove also for rationality, and embodied many ethical teachings in his works. We may rightly conclude, therefore, that the achievements of literary art which survive must be not only beautiful, but truthful and possessed of social value. Since art exists as a control over life, no form of art can disregard the elements of truthfulness and of social value without losing something of its own power. We have every reason to conclude, therefore, that literature, like other forms of art, must be rational and have a moral purpose in order to have the highest cultural value.

Perhaps something should be said about the arts which represent various combinations of arts. The most conspicuous

Combinations of the Fine Arts

of these is the theater, which, especially in the musical drama, is a sort of complex manifestation of all the simpler forms of art. As we have already seen, it is not confined to civilized peoples, though it is one of the highest forms of art. The addition of music to the drama has given rise to the grand opera, which in a way combines the graphic, plastic, literary, and musical arts. In its present form, grand opera is a relatively recent invention, but the Greeks had something closely resembling it. In spite of the fact that it has been for some time a part of our culture, the masses are yet quite unfamiliar with it, probably because of its complexity and the costliness of producing it. Cheap substitutes have appeared in a few of the moving picture shows. These at their best again represent a combination of many arts. While the speaking and singing moving picture has not yet been perfected, we have every reason to believe that it will be perfected ere long.

Future Development of the Fine Arts

This brings us finally to the question of the future development of the fine arts. We often hear the view expressed that all of the fine arts have reached the acme of their perfection, and that the most that we can expect in the future is a diffusion or democratization of the best patterns. It is possible even that some expressions which we have used may be so interpreted, but they were not so intended. It is true that certain patterns have been perfected, but it is also true that new patterns of value may yet be invented and that we are a great way from having exhausted the possibilities of combining patterns into richer forms of art than any which the world has known. The tendency for the past to overshadow the present in art is not caused by a lack of possibility of further development. It is rather because our energies have been diverted into other channels or because we are mistakenly following patterns which have little possibility of high development. We have no right to say that the greatest pictures have already been painted, the most perfect statues carved, the best music composed, or the best poetry written; our general knowledge of culture as a learning process should rather lead us to the conclusion that the perfections which have been reached by the past in the realm of the fine arts may yet be surpassed. Achievements in the future will probably come through specialization along particular lines and also through the combinations of old forms.

Our slump in artistic achievement is due to a variety of things; but the most general explanation of it can be summed up in the word *materialism*. Our industrialism has drafted all—or nearly all—genius into the lines of economic production. We have the idea that the goal of existence is material satisfaction, and we are satisfied with mere comfort and economic prosperity. When we desire artistic achievements instead of comfort and luxuries, then art will again come forward in our social life and will re-emphasize the old standards of beauty, truth, and goodness. That our art is now relatively low is only an indication that our general culture is relatively low. However, we must remember that all forms of culture, as we have repeatedly insisted, have their rhythms and that one part of culture is frequently developed at the expense of another part. When we attain a more balanced culture, the fine arts will again find their rightful place in our social life.

SUGGESTED READINGS

Hirn, Y.—"The Origins of Art," pp. 157-297 (essentials in Thomas, *Source Book for Social Origins*).

Hirn, Y.—"Art, Origins," article in Vol. 1 of Hastings, *Encyclopedia of Religion and Ethics*.

Deniker, J.—*The Races of Man*, pp. 197-214.

Goldenweiser, A. A.—*Early Civilization*, Chap. IX.

Grosse, E.—*The Beginnings of Art*, pp. 207-231.

Holmes, W. H.—"Form and Ornament in Ceramic Art" (in Thomas, *Source Book for Social Origins*, pp. 558-576).

CHAP. XII

Judd, C. H.—*The Psychology of Social Institutions,* Chaps. XI, XII.

Tylor, E. B.—*Anthropology,* Chap. XII.

Wallis, W. D.—*An Introduction to Anthropology,* Chap. XXXVII.

Wissler, C.—*The American Indian,* Second Edition, Chaps. IV, V and IX.

CHAPTER XIII

THE DEVELOPMENT OF PROPERTY

CHAP. XIII

The Definition of Property

WE have been gradually approaching the intangible and non-material factors in culture. One of these which has become evident at certain points is the idea of property. In the strict sense, property is an institution, or sanctioned social relationship. It signifies a relationship between individuals with respect to their legal claim upon and use of things. In this sense, property cannot be considered a primitive institution. It is a legal category which has become gradually defined only in the course of legal development. But there always corresponded to property recognized ownership of things. It would be better in discussing the beginning of property, therefore, to speak of "ownership" and "belongings" rather than of property in the legal sense. In this broad sense of the word, two kinds of property have always been found in every large human group.[1] That is to say, it is recognized that certain things belong to the group as a whole and other things belong to the individual. Individual belongings seem to have been rather small to begin with. Gradually the amount of individual ownership has increased through human history; but the relations between private ownership and public ownership have been so fluctuating that we must study them in detail before any general trend becomes evident. The increase in private ownership witnessed in the nineteenth century, for example, may turn out to be but a temporary fluctuation.

---

[1] Compare Malinowski's statement (*Encyclopedia Britannica,* Thirteenth Edition) that property is neither purely individualistic nor communal, but always mixed. A good critique of the theory of primitive communism is to be found in Lowie, *Primitive Society,* Chap. IX.

Group or Public Ownership

In one sense group ownership has always been the predominant form of ownership in human society, if we include in *groups* families, industrial guilds, corporations, religious bodies, and the like. Such ownership exercised by groups we now consider to be forms of private property holding. We regard ownership as public only when it is exercised by the state or some of its subdivisions, or by its antecedent, the tribe or clan. Public ownership in this latter sense has existed as long as these groups have been in existence. Clans and tribes have always laid claim to certain ground or territory which they regarded as their own, and also to certain things which went with the ground. However, we must not expect to find the ideas of public and private ownership well differentiated in primitive society.

Private Individual Property

When we come to the recognition of strict individual ownership, the matter becomes clearer. Apparently the idea of individual ownership grew up by assimilating certain things to the person of the individual. Thus the earliest recognized individual belongings seem to have been ornaments and trinkets. Then came the clothing worn by the individual, which was regarded as part of his person. Then came the ownership of personal weapons and implements which an individual had long made use of. We know that these things, even in very primitive times, came to be regarded as the peculiar property of the individual, because they were buried with him when he died. Here it may be remarked that *the fundamental element in ownership seems to have been use.* The thing which was habitually used by a certain individual or group of individuals became assimilated to that individual or group. It was the idea of John Locke that private property was the result of labor or of making things. We find, however, among many peoples that the making of a thing does not establish ownership, as indeed it does not even among ourselves. Thus among the North American Indian tribes there were arrow makers who made arrows for the whole tribe. In these cases, however, the worker usually received a certain support from his group, which would be the equivalent of our wages. Even so, however, creative labor would be only one factor in giving rise to the idea of property.

Influence of Exchange

Exchange and barter come in here as still another factor in giving rise to the idea of property. Economists have usually greatly emphasized these, in some cases over-emphasized them. They are processes, however, which have played a great part in defining economic value and so bringing into clear consciousness the idea of property. Animals steal from each other and fight for the possession of desirable things; but as they have not the intelligence to compare the value of things, they do not rise to the level of exchange or barter. While they often seem at times to show a sense of ownership, the limitation of their minds prevents the rise of the idea of property. Among human beings, however, the exchange of commodities leads gradually to the comparison of their utility, to the emergence of the idea of economic value, and finally to definition of the idea of property.

It has been too often assumed that barter and exchange follow a stage of violent robbery. There is little or no evidence for such a view. Exchange seems to have arisen as a consequence of the division of labor between the members of a group. As was just pointed out, some members of the group were more skillful in making certain tools, while other members of the group were more skillful in the hunt, or in preparing food or caring for children. The first exchanges must have been without clear and definite ideas as to the economic value of things or even as to their ownership. The process of exchange served to define both economic value and ownership. It also served to promote the division of labor and coöperation within the group. Only slowly did definite bartering of one commodity for another, or a commodity for a service, arise. Such definite bartering would gradually lead to a sharp definition of economic values of commodities and services in the whole group. It therefore prepared the way for the development of some measure of value and medium of exchange. We usually call such a medium of exchange, which measures economic value, "money." It is needless to point out the very great part which money has played in the evolution of the idea of property. Practically, in our own culture, we have come to think of property in terms of money, though this is, of course, a comparatively late development.

The Influence of Money

The evolution of money, therefore, parallels the evolution of property. Money is nothing but a device to measure economic value, and at the same time to act as a medium of exchange. As has often been pointed out, practically everything which groups have valued in an economic way has been used as money. One of the most primitive forms of money was personal ornaments, such as shells, jewels, and even bright feathers. Tools and weapons have sometimes been used as money. Food-stuffs, especially when scarce, have often been used as the standard of value and medium of exchange. Thus, in Africa, salt has been used as money. In many agricultural countries wheat and other grains have served as the standard of value. Among hunting peoples, the skins of animals are most commonly used as the medium of exchange. Their use survived down to very recent times in pioneer communities. Among peoples with domesticated animals, the medium of exchange became naturally the animal, which was the chief form of wealth. The Latin word for money, *pecus,* also meant "cattle," and to this day we use the adjective *pecuniary.* The creation of a standard of value, or medium of exchange, naturally reacted to develop more clearly the idea of property. We now think of property largely in terms of money. Thus, as we have just said, the evolution of the idea of property parallels more or less closely the evolution of money.

The Influence of Agriculture

The idea of property seems to have gotten no very great development, however, until the agricultural stage was reached. Then, with the domestication of animals, private property began to get better defined. As long as nomadism persisted, however, there was little or no idea of private property in land, though a group might lay claim to certain grazing lands for its flocks and herds. Before property in land arose, came property in human beings. The women who were captured in war were usually claimed by the individuals who captured them. They might be taken as legal wives, though they were virtually the property of their captors and may be said to have been the first slaves. The pastoral industry put a premium upon the labor of men, and hence male captives were taken and held for their labor. Thus slavery developed, and there can be no doubt that it helped define the idea of property as it has come down to us.

Private Property in Land

In primitive agriculture, such as was practiced by the American Indians, the idea of property in land was not well developed. Even among the Aztecs, who held hostages or slaves for their labor, the land seems to have been regarded as belonging to the clan. Strips of land were assigned to certain families, who could lay claim to them as long as they continued to cultivate them. If for any reason families failed to cultivate the land allotted to them, it reverted to the clan and might be reallotted to some other family. Virtually the same system prevailed in the Russian *mir* down to recent times. It also prevailed in early English villages before the feudal system became established.

Private property in land, just as property in slaves, originated as a by-product of war, especially of that type of war which manifested itself during feudal times. A powerful overlord would seize a certain territory and parcel it out among his retainers; the land itself was considered the property of the overlord, but his retainers held rights over it subject to certain obligations to the overlord. Thus property in land, as well as in slaves, seems to have originated not so much from *use* as from *seizure*. It was seizure that created primarily a man's claim upon a slave; it was also seizure which created a private claim upon a parcel of land. Here it may be remarked that various forms of seizure during war have been very influential in the development of property, as we understand the word; for cattle, human beings, and land all became property when they became the spoils of war and subject to seizure. Hence we should expect the idea of property to become most exaggerated when war for plunder became an established institution, as in both Roman and feudal times. The idea of property that was finally developed under this system made everything owned by somebody. The land was supposed to be owned by the king, and the people on the land were held to be owned also. Pretty nearly everything in earth, sky, or sea was laid claim to and was supposed to be somebody's private property.

Slavery and serfdom became universal in Europe and Asia, and the foundation of the whole social system. In most countries the bulk of the land was owned by a very few families or individuals. Thus, at one time the larger part of all the land of Great Britain was owned by a little over four hundred families. When America was discovered, most countries of Europe were still in the grip of feudal tradition, and this landlord system was consequently transferred to the New World, especially in the case of those countries settled by the Spaniards. Until the Madero revolution, a majority of all the arable land of Mexico was owned by a little more than three hundred and fifty families.

Property for Social Use

Very gradually the highest civilized nations have been "demobilizing," so to speak, their ideas of property. The French Revolution took land from the aristocracy or landlord class and reapportioned it among the peasants. Even our own War for Independence broke up the big estates which belonged to the Loyalists. The nineteenth century witnessed the gradual or revolutionary emancipation of slaves and serfs in all of the countries of Western civilization. In other words, the idea of property in human beings was given up. In general, however, our ideas of property have still changed but little from Roman and medieval times. As we have already pointed out, war brought about "property for power." "Property for use" has virtually always existed in human society; but "property for power" has been largely a product of war. Our economic system is still based very largely upon property for power. Many have held that this basis cannot be changed without revolution. Violent disturbances have often accompanied the breaking down of property for power in land, in slaves, and in capital. It would seem that property for power is consistent neither with the rationalization nor with the socialization of property. If we hold that the development of property as a cultural trait must be ultimately in the direction of rational and social utility, it would seem that property for power must be given up or at least reduced to a minimum.

Public Regulation of Property

As a matter of fact, property for power is increasingly submitting to public regulation. Back of this movement lies undoubtedly the ethical doctrine that private property is a public trust. For nearly two thousand years the Christian Church has held nominally to the doctrine of the social trusteeship of wealth. Apparently this doctrine has had but little effect upon institutional development. We must remember, however, that ideas and ideals work very slowly in their influence upon human society. The mere existence and persistence of such an ideal shows a trend in that direction, a trend which is becoming increasingly visible in recent times.

Probably this does not mean that cultural evolution will eventually result in the establishment of communism. It must be remembered that there are other ways of socialization than through public ownership. Just the proportion of public ownership which we should have is a matter of expediency. The socialization of property and of the idea of property does not necessarily mean public ownership, any more than the socialization of the will of the individual would mean that he would have no will apart from his group. Socialization means the putting of a thing at the service of society. Socialization is consistent, therefore, with qualified private ownership. It means simply that the individual recognizes himself as a trustee for society, and of course such an individual will not object to reasonable regulation of his trusteeship. There is, of course, no objection in principle to public ownership when public ownership is expedient and can be made to work efficiently for the common welfare. "Property for social use" must come more and more to be the principle guiding the evolution of property.

The Evolution of Ownership

We have every reason to believe that the trend of property is in the direction of rationalization and socialization. Primitive man started with very little sense of private ownership and very few private belongings. The idea of private property became immensely exaggerated in that period which began with the cultivation of the soil, but which culminated in the practice of war and systematic predatoriness. It was inevitable that powerful individuals in this stage should aggrandize themselves as much as possible. Men experimented with the institution of property simply to increase their own power, as they experimented with all other forms of power. But with the growth of a sense of social responsibility, these crude experiments are bound to cease, and hence property is bound to be limited to its rational, individual, and social utility. Thus we discover that the relative communism of primitive life is balanced by the socialization of property in the stage of fully developed civilization. Again we have our typical curve:

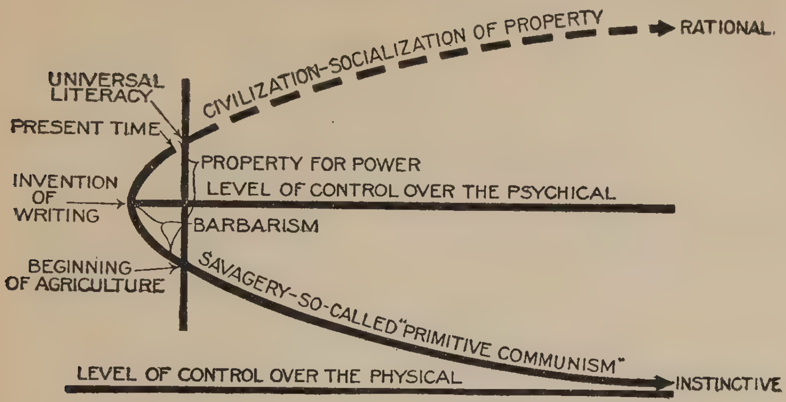
CIVILIZATION-SOCIALIZATION OF PROPERTY
RATIONAL.
UNIVERSAL LITERACY
PRESENT TIME
PROPERTY FOR POWER
INVENTION OF WRITING
LEVEL OF CONTROL OVER THE PSYCHICAL
BARBARISM
BEGINNING OF AGRICULTURE
SAVAGERY-SO-CALLED "PRIMITIVE COMMUNISM"
LEVEL OF CONTROL OVER THE PHYSICAL
INSTINCTIVE

FIGURE 9

The Curve of the Development of Property

SUGGESTED READINGS

LOWIE, R. H.—*Primitive Society*, Chap. IX.
BÜCHER, K.—*Industrial Evolution*, pp. 41-82 (partly in Thomas, *Source Book for Social Origins*).
HOBHOUSE, L. T.—*Morals in Evolution* (1906 Edition), Vol. I, Chap. VII.
JENKS, E.—*The State and the Nation*, Chap. XV.
JUDD, C. H.—*The Psychology of Social Institutions*, Chap. III.
LETOURNEAU, C. H.—*The Evolution of Property.*
SUMNER, W. G.—*Folkways*, Chaps. IV and VI.
WALLIS, W. D.—*An Introduction to Anthropology*, Chaps. XIII, XIV.
WESTERMARCK, E.—*Origin and Development of the Moral Ideas*, Vol. II, Chap. XXVIII.
WISSLER, C.—*The American Indian*, Second Edition, pp. 183-185.

CHAPTER XIV

THE DEVELOPMENT OF THE FAMILY

CHAP. XIV

Human Family Life Cultural

THE relations between the two sexes and between parents and children are the beginning of social organization. These relations exist, of course, below the human level, and so are not necessarily cultural. They represent a part of social evolution which antedates cultural evolution. Nevertheless, among all peoples of which we have knowledge, sex relations and the relation between parents and children have been so modified by culture that they may be considered virtually products of culture. In other words, we do not find these relations any more a matter of pure instinct or of individual habit among human beings; among all peoples they are controlled by custom and tradition. Nevertheless this does not prevent us from viewing them as beginning upon the basis of instinct and individual habit and slowly passing under the domain of custom, law, and moral ideals. Indeed, we have seen that all culture is a passage from instinctive to rational adaptation. That is what the passage from animality to humanity means.

Fore-shadowings among the Brutes

In the case of the family and sex relations we find more foreshadowings of human institutions along these lines among the brutes than in any other case. It would seem sound to reason directly from the brutes nearest man, especially the anthropoid apes, to the primitive human state of the family and sex relations. This would imply, however, too simple a theory of organic and social evolution. Man and the apes are divergent evolutions, and we cannot reason from the one to the other except as we can establish similarity of nature and of conditions. There is little difficulty, however, in establishing a number of these similarities. As we have already pointed out, primitive men could not have been governed by custom and tradition, because these had not become established. They had to be governed by their natural impulses, by the conditions of the moment, and by the natural intelligence with which they were equipped. The similarities between the existing apes and the earliest men, therefore, while instructive, are not conclusive.

The Origin of Marriage

We are justified, however, in saying in a general way with Westermarck that "marriage was transmitted to man from some ape-like ancestor, and there never was a time when it did not occur in the human race." Nevertheless, the most primitive form of marriage in the human species must have been on a merely animal level. It must have been a simple mating, largely upon an instinctive basis, such as we find among the brutes. The question was whether such a primitive pairing form of marriage was more or less durable. We find that among the apes and a number of the other higher animals it is durable, largely because of the needs of the offspring. Now man is characterized by an especially helpless infancy, and, because of his erect posture, by a peculiar helplessness of the human mother just before and after the birth of her offspring. If we add to this the scarcity of food in primitive times, as well as the danger from wild animals, we can see that in any human group that survived, mating had to be more than a mere temporary relation. It had to be marriage in Westermarck's definition of the term as a more or less durable relation between male and female lasting till after the birth and rearing of the offspring.

It is for this reason that we find marriage universal among all human groups, and that the relations between the sexes tend to become permanent when children are born. If children are not born, however, it is the general rule among the peoples lowest in culture that relations are not permanent. Hence, among some peoples, relations between the unmarried are somewhat free. As a rule, however, the birth of offspring produces a more or less permanent relation. Thus we can say that the earliest form of marriage of which we have knowledge among human beings was that of a simple pair marriage, usually monogamous in form. It is quite evident that this earliest type of marriage rested mainly upon an instinctive basis, upon the sexual instinct, on the one hand, and upon the instinctive tendency to care for the child, on the other hand.

It would be well to add that primitive conditions of life hardly permitted of any other arrangement. The sparsity of population, the scarcity of food, the smallness of human groups, hardly ever exceeding more than a dozen families in number, the helplessness of the women and children, all together conspired to make impracticable any other form of sex relation than that of a simple pairing monogamy. Male jealousy and biological conditions also worked in favor of this arrangement. As Thomas says,[1] "Man is fundamentally a jealous animal. The strange lack of sexual jealousy among the Australians and Todas is not a natural trait but a socially induced condition." He therefore agrees with Westermarck that the theory of a primitive state of irregular general promiscuity has no foundation in the facts which we know concerning primitive peoples, and that there is no evidence that any people has lived in such a state.

The Primitive Pair Marriage

It may be asked, if the primitive state was one of a simple pairing monogamy, whether culture on the whole has not tended to corrupt the family through its departures among many peoples from the monogamic standard. We shall see evidence that culture in its cruder developments has tried many experiments with the family, just as it has tried experiments with everything else human. We have already seen how the culture of barbarism and of semi-civilization has been given to experiments to increase the power or pleasure of individuals at the expense of the race. But it is obvious that it would be foolish to idealize the primitive pair marriage. We have already pointed out that it must have been a relatively brute-like condition, even though instinctive impulses and natural conditions tended in most cases to make the relationship a permanent one. This statement does not preclude instability in primitive sex relations when offspring failed to be born nor the possibility of occasional polygamous unions; nor does it give any warrant for claiming that primitive standards of chastity were as high or higher than our own. It only asserts the universality of the family in the earliest culture as a relatively permanent union between male and female, usually monogamic in character.

---

[1] *Source Book for Social Origins*, p. 530.

Group Marriage

This primitive monogamy seems to have lasted through the whole state of savagery, or rather to have begun to be altered only in upper savagery. The main evidence against this conclusion is furnished by the Australian aborigines, whose so-called "group marriage" has furnished a ground for much contention among writers on the family. The best solution of the matter seems to be the one pointed out by Thomas, that the group marriage of the Australians is a particular expression of the mores, or a culturally induced condition, and not representative of a universal stage. Certainly nearly all the other simpler peoples in point of culture have some sort of monogamy. Moreover, the so-called group marriage of the Australians seems to be more a theory than a practice. The accessibility of all Australian women at certain times to men whom they are not permitted by the tribal rules to marry did not, after all, preclude the existence of relatively settled family relations among the Australians. Finally, grave doubts now attach themselves to the view that the Australian aborigines are true primitives,[2] or that their savage society represented a truly primitive condition.

---

[2] See the article on the "Aborigines" of Australia by Channing Arnold in Vol. II of the Eleventh Edition of the *Encyclopedia Britannica*, pp. 954-958.

The Primitive Family Metronymic

It would seem that in the main we are justified in concluding, therefore, that a simple pairing monogamy was mainly the form of sex relation which prevailed during the period of savagery, which is to say for more than 100,000 years of the life of the race. During the larger part of that time, moreover, the relation of the child was predominantly with the mother rather than with the father. This was due to the fact that the mother was the stable element in the family relation. In all human society the female has been more stationary and settled, the male more nomadic, and this was especially true in primitive times; for, as we have already pointed out, the men were largely occupied with hunting and gathering food, while the women were largely occupied with the care of the children. The children being more closely associated with the mother, when the custom of naming began, they were very naturally named after the mother. Moreover, man did not start with any scientific knowledge of the relations of a father and his offspring.[3] The physiological connection between the father and the offspring must have been unknown at the very beginning of the human stage, and for a long time thereafter, just as it is unknown among the brutes. When man reached the concept of blood relationship, therefore, it must have been a concept which applied only to the relations of mother and offspring. That the child was of the mother's blood was an observable fact; but a considerable degree of scientific knowledge is required to reach the conclusion that it is also of the father's blood. We have every reason for concluding, therefore, that the earliest form of the family was not only monogamic but metronymic. Those writers who have argued differently and who have concluded that the patronymic family is as early as the metronymic, have not sufficiently taken these facts into consideration, but have based their generalizations upon the observations of peoples like the American Indians, relatively advanced in culture.[4]

---

[3] Says Tozzer (*Social Origins and Social Continuities*, p. 89): "It seems safe to say that among a few peoples [still] procreation is not understood to be the result of sexual intercourse. . . Among some of the tribes in central and northern Australia, conception is believed to be the result of entrance into the body of the woman of an animal spirit. The child is thus the reincarnated spirit of this animal."

Polygamy and Prostitution

These few sentences are all that we can give to the description of the most primitive form of the family. Such a description is naturally quite inadequate, but we are here concerned more with the development and trend of human institutions than with their origin. The primitive family which we have described seems to have persisted among nearly all peoples with little change until war began. War naturally brought the capture of women. These captured women were saved for sex purposes. In some cases, they were held as trophies and as wives or concubines by powerful single warriors. In some other cases, however, they seem to have been held by groups of men and to have been used as common women by all the men of the group. We have here the beginnings of three important institutions, namely, slavery, polygyny, and prostitution. All writers have recognized that women thus captured were the first slaves. While we perhaps do not have here the very first beginnings of polygyny, we have its main stimulus or cause. The same statement may be made regarding prostitution. There is little evidence to support the view that either polygyny or prostitution was common until women were captured in war. Through all the ages since war began, these forms of sex relationship have accompanied war, and we are justified in concluding that in their development, if not in their origin, they are intimately connected with the practice of taking women captive in war.

This practice, too, as much as anything, brought to an end

---

[4] Practically all of the British anthropologists, such as Marett, Malinowski, Hartland, Hobhouse, and Briffault, uphold the view that the metronymic system of naming was primitive.

CHAP. XIV

the metronymic family. It is not an accident that the metronymic family very early disappeared among the warlike peoples of Europe and Asia. We must remember also that war and the pastoral industry worked together to develop human slavery, and that upon slavery was based the idea of property in persons and hence the later practice of wife purchase. War tended, moreover, not only to enslave captive women, but to subordinate all women. The mighty warrior who held women among his trophies not only laid claim to his captured wives and their children, but asserted his superiority over other women with whom he had come into relations peacefully. The exaltation of the male element in human society through war and through the development of the pastoral industry, therefore, led inevitably to the supremacy of the male in sex relations and in the family, and so to the patronymic, and finally to the patriarchal family.

The Patriarchal Family

It is the patriarchal family which we find universally among the civilized peoples of Europe and Asia at the beginning of recorded history. Among some peoples, such as the Hebrews, it was polygynous in character, while among others, such as the Romans, it was nominally monogamous, with a great deal of concubinage tolerated with female slaves. This type of the family was highly despotic or authoritarian. Among many peoples, like the early Hebrews and the early Romans, practically supreme power was lodged in the hands of the house father. This practice, however, could be maintained only as long as families were relatively isolated. The power of the patriarchal house father was bound to deteriorate with the formation of larger social units, and it did so rapidly. It left behind, however, the spirit of its form in all social organization. The authoritarian form which had been given to the family and to society generally by a militant organization radiated to all human institutions. The patriarchal family decayed, but there was little or no attempt to reconstruct the family and sex relations upon a higher basis. In fact, one is struck in a study of Greek and Roman society by the lack of any tendency to find a higher basis for the family and sex relations. Apparently the only two tendencies were either to drift in the direction of irregular promiscuity or to go back to the old patriarchal form of the family. To some extent these are the two main tendencies evident in our society at the present time. The intervening centuries witnessed the attempt of the Church to reëstablish the family upon a semi-patriarchal or authoritarian basis. The advent of modern democracy has, however, rendered such an organization of the family untenable, and in the confusion which now exists apparently no clear ideal has emerged for the family life which is accepted by the masses.

As in the case of all other human institutions, it was inevitable that many crude experiments should be tried with the family when power to do so came into man's hands. The invention of agriculture so increased the food supply that it was possible for some classes to attempt the support of more than one wife. This was all the more possible because women were the main agricultural laborers. The advent of war and of the capture of women in war gave an additional stimulus to polygyny. The practice, however, was limited on the one hand by the fact that nature had made the sexes numerically equal under normal social conditions, and on the other hand by the limitations upon wealth and food supply. A considerable excess of women over men in a population was possible only either through the killing off of men in war or through the capture or importation of women. The limitations of wealth and food supply moreover, could be overcome only by victorious militant groups, and then only for their nobility. Thus polygyny never got a hold upon the masses of mankind. Even less did the other form of polygamy which we call polyandry. Polyandry as an experiment in the organization of the family was limited to a few peoples in very unfavorable environments, in which the hard conditions of life made it difficult for one man to support one woman and her offspring. Under such conditions the polyandrous relation was tolerated, though male jealousy prevented it from ever becoming common. Even among the peoples who tolerated it we find it as a rather exceptional form of marriage, existing alongside of monogamy and sometimes even of polygyny. Culture, we see, is after all powerless against nature or against those underlying laws and principles which work in human relations. Culture proceeds by experiment or by the process of trial and error, but it is successful in its experiments only as it takes account of underlying facts and tendencies.

Family Instability

More common and probably more significant than polygyny or polyandry in the development of the family has been the tendency in certain peoples and ages to develop unstable sex relations and family life. This has been a pronounced tendency in every people and in every age which has experienced great economic prosperity, unless religious scruples prevented it, or unless such institutions as polygyny and concubinage veiled it. The economic prosperity of the modern world, together with the decay of religious scruples regarding the family, has made this tendency very pronounced in our civilization, and especially in the United States. A large number of students of social conditions have interpreted this movement to signify that the trend of culture is in the direction of relatively free, shifting sex relations, or so-called "free love." It is questionable, however, whether this interpretation is a correct one. The increase of divorce and of shifting sex relations seems to have characterized every period of decadence in culture, and appears to be a phenomenon of social disintegration and dissolution rather than a phenomenon of normal social development. In other words, it is pathological. It is again one of those crude experiments which men try when power comes into their hands and when they find that old adjustments no longer work well. The authoritarian family life of the past has broken down and has practically disappeared from whole classes in our society. The democratic type of family life has not yet arrived. It will be possible only when both the individual and the family life itself have been much more fully socialized than they are at present. In the meantime we have a reign of individualism, and unsocialized individualism means instability in family relations. With the advent of the more fully socialized individual, with a sense of social responsibility for his (or her) sex and family relations, we have every reason to expect a return to a more stable family life.

The Socialization of the Family

The socialized family of the future cannot be polygynous or polyandrous, for the reasons which we have pointed out. If it cannot be an unstable union and meet its social responsibilities, then it must be a relatively permanent monogamy. The basis for this relatively permanent monogamy, however, will not be instinct or romantic emotion; it will be a sense of the responsibility of the family group to society at large. Not instinct nor individual self-interest, but a sense of social responsibility will be the basis of its stability. The concrete basis of this responsibility will be the child. Human family life started, as we have seen, in child care. The family has been the cradle and carrier of culture just because it has been the primary nurtured group for children. Its primary function has always been child care, and a family is socially normal in proportion as it recognizes that this is its function. War, slavery, and what we have called the "shock of barbarism" have tended to set up some other function for the family and make it primary, such as sex gratification and the happiness of adults. If the family, however, is to become socialized, a first step must be the reaffirmation of its primary function of child care. This means that the family must develop, in the long run, toward stability. We saw that stability in the primitive family

CHAP. XIV

depended upon this function of child care. We have every reason to believe that stability will return to the family life when its function of child care is recognized as primary.

The Problem of Numbers

This raises the question of the birth and number of children in a family group as well as of their rearing. While the family group originated in child care, yet practically all human family groups from primitive times down to the present have found it necessary in one way or another to limit the number of children in a group, because conditions of living have in all stages of culture made it impracticable for a family group to care for more than a certain number of children. The crude way of preventing the presence of more children in the family group than could be provided for was infanticide. It is impossible to say how far infanticide as a method of limiting the size of the family goes back in human history. It was regularly practiced by the Australian aborigines, by the Polynesians, and by the highly cultured Greeks and Romans. While it was not practiced by the Jews of historic times, it was only the advent of Christianity which put an end to this practice in Europe. It is of course still practiced by many of the cruder peoples today. It should be noted that the practice of infanticide is not inconsistent with a high regard for the children who are selected for rearing. Filial piety was a dominant social virtue among the very peoples that practiced infanticide most extensively; and filial piety presupposes parental care. Very rightly, however, the higher religions and ethics have united in condemning this practice and the correlated practice of abortion. This has not been wholly because of a greater refinement of feeling, but because of the perception that this practice, like many other primitive practices, is incompatible with respect for personality and a highly coöperative and complex social life. In higher culture, in other words, the sacredness of personality is necessary for the existence of complex societies.

Hence, other means have been employed to limit population and the size of the family. The Church took up celibacy and especially advocated it during the Middle Ages. Protestants of the more thrifty sort practiced late marriage. Both celibacy and late marriages, however, it is now recognized, bring grave dangers to society and entail evils which are inconsistent with the normal social life. Evidently other forms of birth control are absolutely necessary in a high state of culture. Our present society vacillates between moral and immoral forms of birth control. It would seem that the socialization of the family would involve a sense of social responsibility for the children within the family group. It should give rise ultimately to a moral control over the reproductive process within the family. Such moral control would of course necessitate not only a high degree of intelligence on the part of individuals in the marriage relation, but also a high sense of social responsibility. In such a highly socialized family group, children would be welcomed in so far as they could be properly provided for physically and spiritually. Child care would again be recognized as the primary function of the family group. The family would itself become even more than it has been in the past the primary socializing and culturing agency.

The Trend of Family Life

Thus we see the parabolic curve of culture again in the case of the development of the family. The primitive family began as a simple pairing monogamy, upon the basis of natural instincts and necessities. In spite of the aberrations through which the family life has gone during its history, we have every reason to believe that if the progress of culture continues, the ultimate family will be again a stable monogamy, but upon a basis of the ethical obligations of the family group to society and to humanity at large. We have, then, the curve shown in Figure 10:

In considering property and art as well as some other phases of cultural evolution, we have seen the difficulty of judging the cultural trend by means of objective standards. This is the case with all the intangible or non-material phases of culture. It is especially evident in the case of the family. This is obviously one reason why superior forms of the family are not readily diffused and made a part of the culture of the masses. There are more difficulties in achieving a high culture along spiritual lines than along material lines. Yet, in the total complex of culture it scarcely can be doubted that the non-material culture is more important than the material; for the non-material culture includes not only the mental patterns back of material culture, but also social attitudes and social relations. Essentially, we see, the two phases of culture are the same. Both material culture and non-material culture depend for their advancement upon invention and diffusion. Diffusion is much easier, however, with material culture, because easy tests can be applied as to the rational utility of a material invention. No such easy test can be applied in the case of non-material culture. The family illustrates this matter very clearly. The highly developed family life, which recognizes its responsibility to society as a whole, depends for its diffusion upon the social intelligence and general socialization of the masses of the

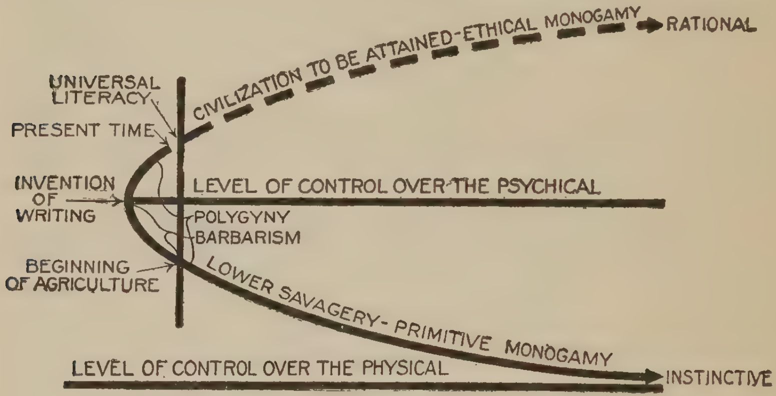
CIVILIZATION TO BE ATTAINED-ETHICAL MONOGAMY
RATIONAL
UNIVERSAL LITERACY
PRESENT TIME
INVENTION OF WRITING
LEVEL OF CONTROL OVER THE PSYCHICAL
POLYGYNY
BARBARISM
BEGINNING OF AGRICULTURE
LOWER SAVAGERY-PRIMITIVE MONOGAMY
LEVEL OF CONTROL OVER THE PHYSICAL
INSTINCTIVE

FIGURE 10

The Curve of the Development of the Family people. The family life of the past had very little of such a cultural foundation. Primitively, it rested upon instincts and the necessities of life; later it was upheld by a system of authority in law, government, and religion. But the ethical family cannot be narrowly based. It must be based upon the welfare of society as a whole, upon a sense of social obligation, upon social ideals which are willingly shared and accepted. All this, however, presupposes a high development of spiritual culture among the masses, the general diffusion of social intelligence and social good will. When this state is attained, the diffusion of the pattern of ethical monogamy will be possible.

SUGGESTED READINGS

Tozzer, A. M.—*Social Origins and Social Continuities,* Chap. IV.

Briffault, R. S.—*The Mothers,* Vol. I, Chap. X.

Hastings, J.—*Encyclopedia of Religion and Ethics,* article on "Family (Primitive)" by Fallaize.

Hartland, E. S.—*Primitive Society,* Chaps. I, XII.

Hobhouse, L. T.—*Morals in Evolution* (1906 Edition), Vol. I, Chaps. IV, V.

Lowie, R. H.—*Primitive Society,* Chaps. II-V.

Marett, R. R.—*Anthropology,* Chap. VI.

Margold, C. W.—*Sex Freedom and Social Control.*

Rivers, W. H. R.—"Polyandry Among the Todas" (in Thomas, *Source Book for Social Origins,* pp. 483-489).

Spencer, B., and Gillen, F. J.—"Australian Marriage" (in Thomas, *Source Book for Social Origins,* pp. 468-482).

Sumner, W. G., and Keller, A. G.—*The Science of Society,* Vol. III, Part V.

Wallis, W. D.—*An Introduction to Anthropology,* Chap. XXVIII.

Westermarck, E.—*History of Human Marriage,* Fifth Edition, Vol. I, Chaps. I-VI; *Origin and Development of the Moral Ideas,* Vol. II, Chap. XL,

CHAPTER XV

THE DEVELOPMENT OF LAW AND GOVERNMENT

CHAP. XV

The Control of Custom

SOCIAL control has always existed in all human groups, but it has had different degrees and different forms of expression and organization. The simplest human groups in point of culture seem to have no formal law or formal government. Nevertheless we do find always that they have various means of controlling the conduct of their members. Human groups, as we have seen, have always been characterized by sanctioned collective habits which we have called "customs." Human groups have always been ruled by customs, and custom is the earliest form of law and government. By custom we simply mean a rule of life that is generally agreed to by the group. In many cases customs grow up unconsciously, in others they are the result of the diffusion of new and advantageous adjustments, which are more or less consciously adopted. In every case the customs of the group, because they are rules of behavior for the group, have a certain element of compulsion about them. Most customs have very strong compelling sanctions, and in the simpler human groups customs are more strictly obeyed than laws are in civilized groups. Thus we often say that the savage is "the slave of custom," and that in that sense he is more law-abiding than the civilized man.

Customary Law

Custom was then the first form of law, and customary law has played a great part in the development of all law. The English common law was simply the body of customs of the early English-speaking peoples. In custom, then, we find the beginning of law of every sort. Custom decided what actions were crimes and what penalty should be visited upon an offender. Before organized government arose, the breaches of custom were punished by the group as a whole, as they still are to some extent even in civilized groups. The punishments of primitive times were very crude and simple. They were mainly of three sorts, death, exile from the group, or bodily mutilation. Social ostracism seems also to have been practiced by the most primitive human groups as well as by the most civilized. The important thing is to note that in custom all human groups have had an implicit code of law and morals. We shall take up this matter again under the head of the development of morality. It is sufficient to point out here that it is an error to suppose that there are human groups without law and morals, without conceptions of right and wrong, and without penalties for the commission of wrongful acts. We know of no such human groups.

Law and Government

Law seems to be much older than government, but it inevitably became entangled in the development of government. Law and government, like morality and religion, are theoretically separate, but practically they have developed together. The earliest form of government, like the earliest form of law, was informal and unorganized. For this reason some have spoken of primitive human groups as anarchistic; and this they were in the sense that they had no *organized* government. Thus, among the Bushmen groups of South Africa we find no recognized head or governmental authority. We do find, however, that considerable authority is exercised by the older men. The same was true of the Australian aborigines. Their groups were governed almost entirely by the authority of their older men. The government of the elders has apparently always existed in human society, and it has persisted even among the most highly civilized peoples. We still speak of our city councils as boards of "aldermen," and still call one house of our legislature the "senate" (old men). Age has always brought prestige in society because it is supposed that age brings wisdom.

Primitive Bases of Prestige

But other qualities than age have also brought prestige and have played even a greater part in the development of organized government. Even in very simple human groups, good talkers are looked up to, because of their ability to persuade others and to sway the opinion of the group. The mighty hunter also in primitive times gained much respect and prestige, and his influence in the group was frequently considerable, though it rarely encroached upon the authority of the elders. It was not until the mighty hunter became the mighty warrior that the authority of the elders began to wane. Hunting did not necessitate that strict organization and subordination to a leader which warfare did. War necessitated for its successful prosecution not infrequently the subordination of the whole group to one leader. After war became common, only those human groups could survive which adopted this practice. The others were vanquished and enslaved. The body of elders was still retained in the victorious group, but they were retained merely as advisers. The real authority passed to those who had the leadership of the group in time of war.

War and Government

Thus we see that organized government originated largely in connection with warlike activities. Primitive governments, because they were informal, were democratic. They depended upon the will of the whole group, even though the body of elders voiced that will. The real governing power, as we have already pointed out, was the custom of the group. Primitive democracy required no high intelligence in individuals, because it was simply the rule of custom. It was therefore unlike our democracy, which is supposed to be the rule of a more or less rational public opinion. It is a mistake, however, to think that autocracy was primitive. Even long after war arose, and the power of the war chief was considerable, groups yet remained essentially democratic. Thus the American Indians were frequently warlike; yet the great majority of their tribes remained democratic, even electing their war chiefs. Even these pre-literate peoples sometimes saw the tendency in war toward autocracy and despotism, and tried to avoid it by various devices. Thus the Iroquois, to prevent the war chief from exercising too much power, elected two war chiefs instead of one, the idea being that one would be a check upon the other.

Origin of the Kingship

But with very militant peoples, autocracy or at least monarchy became inevitable. If a people were constantly at war, the war chief held his power for an indefinite length of time, and on account of tribal emergencies he gradually got the power to select his own successor. With a people that had but short intervals of peace, and who slept, so to speak, upon their arms, it was natural to give the war chief considerable power in peace time. The body of elders might be supposed to rule in peace time, but in the case of militant people even in peace time they could be but little more than advisers. Thus the kingship easily and naturally developed from the war chieftainship. This was facilitated when one people conquered another and held that people as slaves or hostages. Then with a hostile conquered people in the midst of the population, a potential state of war existed all the time. One reason why many North American Indian tribes retained their primitive democracy in spite of warlike practices was doubtless because they took no captives or slaves. The holding in subjection of a conquered people or conquered territory has always necessitated a strong government and so promoted monarchy.

Absolute Monarchy

The more absolute forms of monarchy, however, did not arise without certain other factors assisting. Even after a war chief had become virtually a monarch, he was surrounded by other lesser chiefs or by a nobility which curbed his power. His power was also curbed, especially in peace time, by the priesthood, who had in their hands the supernatural powers of the gods. The monarch might curb the power of the nobility by greatly increasing his wealth at the expense of their own. But the power of the priesthood could only be curbed by the monarch's seizing, in one way or another, the priestly power. The early war chiefs and kings evidently perceived this fact, for we find much evidence to show that they very early aspired to get the priestly power in their own hands. Doubtless they found various ways of doing this. Sometimes one of them got himself elected chief priest or chief medicine man. More often he claimed that his power was directly given him by some divinity, and claimed descent from this divinity. This was the more easy because of the credulity of the primitive mind which we have already discussed. The war chief, or early king, could only become absolute by controlling divine power, for this was the only power which the group acknowledged to be absolute. In a word, military power plus divine or religious right gave rise to governmental absolutism.

We can trace this development in a number of historical instances. The Aztecs, for example, when they first began to move southward from their primitive home in Arizona, were undoubtedly, like most of the warlike tribes of the American Indians, a militant democracy. We do not know much about their early history, but we do know that as they moved southward into Mexico they conquered tribe after tribe, taking hostages or slaves from these tribes. Finally, with their confederates they overthrew the peaceful Toltecs and Mayas who were in possession of the valley of Mexico. They had by that time conquered practically all of Mexico and extended their sway over a population of several million who were held in subjection to them. Their war chief claimed great power, and while he had formerly been an elected chief, Montezuma I about fifty years before the Spanish appeared got himself elected chief priest and claimed to rule by divine right. Montezuma II was his grandson, and his person was already regarded with superstitious awe by the Aztecs, so that when he was seized by Cortez and his followers the monarchy soon went to pieces. In Peru something similar must have taken place much earlier. Manco Capac, the founder of the Inca dynasty, claimed to be the son of the sun-god. His person was regarded as semi-divine, and his power was absolute, extending to absolute ownership of all persons and property within his vast empire.

It is almost needless to add that remnants of this theocratic absolutism are to be found in practically every absolute monarchy which has existed within historical times. Thus Jimmu Tenno, the founder of the reigning dynasty in Japan, claimed to be the son of the sun-goddess. The person of the emperor in Japan is therefore regarded as sacred, and he himself is considered semi-divine. Indeed, the worship of the emperor, or mikado, in Japan is still the dominant religion of the masses. It is this which has given the Japanese their wonderful loyalty to their government and created the wonderful solidarity of its people. The czars of Russia claimed to rule by divine right, and so did also the kaisers of Imperial Germany. Even the kings of England are supposed to rule "by the grace of God," and nominally they are still the successive heads of the English Church. We have every reason to conclude, therefore, that absolutism in government is associated with militarism, on the one hand, and with theocracy, on the other. All the absolute monarchies, at least, which the world has known have been more or less theocracies.

Other Forms of Absolutism

It must be acknowledged, however, that the absolutism of aristocracies and oligarchies is not so closely associated with theocracy. In a few cases they seem to have grown up simply from militarism and the conquest of one people by another. Nevertheless, even in these cases there is a strong tendency to claim that the right to rule was divinely conferred. In nearly all cases the rule of an aristocracy or oligarchy was either preliminary to the organization of an absolute monarchy or was the result of the overthrow of an absolute monarchy which left power in the hands of the revolting nobles. The whole authoritarian stage of government and law seems to be again clearly a case of that experimentation with power which inevitably came in with war and the growth of wealth. The authoritarian period in government and law is coincident, in other words, with barbarism and semi-civilization. When power came into the hands of one man, or one set of men, through the necessities and fortunes of war, it was natural for them to try to retain this power. The easiest means of retaining it was the appeal to the superstitious beliefs of the people. If those who had set up absolute authority could get on their side the power of the gods, they were much more sure to retain their authority than they would be by the power of the sword. Obviously, too, such authoritarian governments could not crumble until the religious beliefs or superstitions of the masses began to crumble. That is the reason why absolute monarchies have been so rapidly disappearing within the last one hundred and fifty years.

Modern Democracy

In some cases the authoritarian stage of government and law has been very gradually modified into a more or less democratic stage, but usually this change has been accompanied by bitter struggles between classes, or what we call revolutions. It is now evident that authoritarianism cannot persist in government and law, and the problem is how to mediate the development of democratic government. Obviously we cannot go back to the primitive democracy which rested upon tradition and custom. The democracy which the most advanced modern nations are now trying to develop is a very different affair. It is an attempt to rule through a rational public opinion. It presupposes the self-conscious, intelligent coöperation of the whole mass of the people in the process of government. Government, in other words, seems about to enter upon a new stage in which it is neither custom nor mere authority, but intelligence. Such a stage of political development implies of course a corresponding development of personality in the masses. Its prerequisites must be universal education in social and political affairs and a socialized personality in the great mass of individuals.

There can be no doubt that the realization of successful democratic government will be a slow process; but, so far as the student of human society can discern, it is inevitable. It is inevitable that human groups in their ultimate development, in other words, should be ruled by the rational opinion of the group. It was inevitable that the earliest groups should be ruled by custom and habit, and it was also probably inevitable that in the development of government autocracy or absolutism should be tried out. But it is plain that in the long run human groups must be ruled by their own mind; that is, by a more or less rational opinion formed by the group as a whole. Thus we see again the passage from a stage of instinct and habit to a stage of intelligence and rationality. Again the parabolic

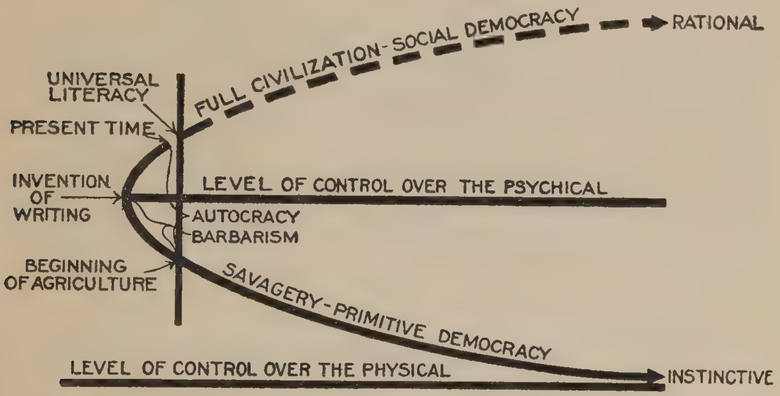
FULL CIVILIZATION-SOCIAL DEMOCRACY
RATIONAL
UNIVERSAL LITERACY
PRESENT TIME
INVENTION OF WRITING
LEVEL OF CONTROL OVER THE PSYCHICAL
AUTOCRACY
BARBARISM
BEGINNING OF AGRICULTURE
SAVAGERY-PRIMITIVE DEMOCRACY
LEVEL OF CONTROL OVER THE PHYSICAL
INSTINCTIVE

FIGURE 11
The Curve of the Development of Government

form of the curve of culture seems clearly indicated. In the primitive stage we see a primitive democracy based on custom. As we pass through barbarism and semi-civilization, autocracy gets its development; and now gradually we see the development of modern democracy based upon the more or less rational formation of group opinion (see Figure 11).

Whether democracy in the form in which we have sketched it will ever arrive will of course depend upon the success which human society has in getting rid of war and in developing rational humanitarian religion. While every phase of culture has its own learning process, it is also true that the different phases of culture are interdependent. A democratic government cannot succeed with religion in the theological stage, with property rights unsocialized, with ethics individualistic, and with education confined to a few. The advent of democracy as a form of social control obviously implies an elevation of the whole level of the culture of the masses of the people.

SUGGESTED READINGS

Beard, C. A.—"The Evolution of Democracy," Chap. XXIII in Cleveland, *Democracy in Reconstruction.*

Hastings, J.—*Encyclopedia of Religion and Ethics,* article on "Law" by Hartland.

Howitt, A. W.—*Native Tribes of South-East Australia,* pp. 295-341 (in Thomas, *Source Book for Social Origins,* pp. 764-786).

Jenks, E.—*The State and the Nation,* Chap. IX.

Judd, C. H.—*The Psychology of Social Institutions,* Chap. XVI.

Lowie, R. H.—*Primitive Society,* Chaps. XIII, XIV.

Marett, R. R.—*Anthropology,* Chap. VII.

Powell, J. W.—"Wyandot Government" (in Thomas, *Source Book for Social Origins,* pp. 823-835).

Ratzel, F.—*The History of Mankind,* Vol. I, pp. 129-141.

SPENCER, B., and GILLEN, F. J.—*Native Tribes of Central Australia*, pp. 10-15 (in Thomas, *Source Book for Social Origins*, pp. 788-792).

SUMNER, W. G., and KELLER, A. G.—*The Science of Society*, Vol. I, Chap. XVI.

TOZZER, A. M.—*Social Origins and Social Continuities*, pp. 199-220.

WALLIS, W. D.—*An Introduction to Anthropology*, Chap. XXIX.

CHAPTER XVI

THE DEVELOPMENT OF MORALITY

CHAP. XVI

Custom and Morality

THE earliest conception of morality was that it was simply a matter of sharing customs. Immorality was simply the breaking of the rule of custom. Therefore morality as well as law originated in custom. The great mass of mankind still have scarcely any higher conception of morality. Even Hegel could say that "morality is the legality of the heart." This conception of morality would identify it with custom and law. It would make morality, to be sure, a social matter, but something determined by the custom of the social group. If this were true, there would be no appeal from the custom of the group. The customs of groups, however, vary; and therefore, according to this view, morality would vary directly with the customs of the groups. Many anthropological and sociological writers have indeed reached this somewhat startling conclusion. If it were correct, there would be obviously no use for the concept of morality. It would be simply another name for the observance of custom, and what would be moral in one group would be immoral in another, and the group would in all cases determine what was moral and what was immoral. Sumner seems to endorse this position when he says that the mores, or customs, can make anything right.[1] If he had said that the mores can make anything appear right to the uncritical mind, of course every student of society would have to agree with him.

Morality and the Will of God

Customary morality has been the chief morality of the great mass of the people in all ages. No other sort of morality was dreamed of during the whole of the savage stage. "It is the custom; therefore it is right," was the universal reasoning of the savage mind. It was also the typical reasoning during the stage of barbarism. Barbaric customs, however, bore down so heavily upon individuals, and especially upon conquered groups, that in the later stages of barbarism the right of custom began to be questioned. But it was not until writing had been invented and ideas could be graphically symbolized that concepts of right and wrong began to be critically examined. Then among some of the more advanced peoples morality began to be represented as something above custom, as the will of God, God being conceived as a ruler or monarch. This idea of right or morality probably arose from the fact that the absolute monarch not infrequently exercised his authority contrary to custom, and that when he was a humane man his rule came to be regarded by the people as superior to the rule of custom. As the idea of God developed, it was felt that the judgments of such an ideal personality were safer and better than the rule of custom. The conception of the will of God, however, was greatly influenced by the customs of the time; for as we shall see, primitive religion was scarcely more than the sanctification of customs. Therefore this theological conception of morality did not at the beginning break the shackles of custom.

---

[1] See *Folkways*, Chap. XV.

The Greek Sophists

Probably the Greeks were the first people to break openly with the conception that the moral was merely the customary. Some of the Sophists, as the Greek public teachers were called, early taught that "might makes right." With the conquest of one people by another, customs inevitably came into conflict. The problem was, which custom was right, and the crude answer to this question naturally was, "the custom of the stronger group." Moreover, the absolute monarch at times broke the custom of the group, oftentimes to the advantage of other individuals than himself. Therefore it seemed evident that might, or "the will of the stronger," made right. The Sophists who taught this probably did not intend to set up an inhumane doctrine, but the doctrine proved to be in the long run more inhumane than the view that the customary is the right, because it justified all sorts of oppression and tyranny. It was a much worse conception of morality than the conception which identifies morality with custom, and this became evident even to the better minds among the Sophists.

Hedonism

Some of the Sophists and probably a majority of the Greeks, at least in later times, inclined to the view that that is right which conduces to the pleasure or to the happiness of individuals. Right was not mere custom nor mere might, but that which would maximize the happiness of individuals. It was something to be determined by individuals themselves subjectively. This was the conception developed by Epicurus and his followers. Epicurus especially emphasized the value of intellectual and esthetic pleasures. This view of morality aimed at the mitigation of the hardships and suffering of life. It was a conception of morality which was readily taken up and popularized in an age which had attained some comfort and which desired to increase the pleasures of life. But it proved a very radical conception of morality, because it gave such scope to arbitrary individual choice and to self-indulgence. It speedily degenerated into a doctrine that the good of life consisted in maximizing comfort and sensual pleasure. It not only dissolved the old customary morality but was a powerful factor in bringing about the social disintegration which soon set in, first in Greece and then in Rome.

Morality as the Ideal Social Order

The wisest of the Greek thinkers saw that this was an impossible conception of morality and that it tended to dissolve social order. Both Plato and Aristotle attempted to set up a more social conception of morality and to establish that the essence of right was to be found in a rational ideal social order. It was the perfect society, not custom nor might nor pleasure, which defined the right. For both Plato and Aristotle the right consisted in sharing a social ideal. As to just what this ideal was, however, they disagreed. Plato's conception of an ideal society was very different from Aristotle's, though both seem to agree that the right involves a certain balance or harmony between all of the elements of life.

Something approaching the later intuitionists was to be found in the teaching of the Stoics, who emphasized the fact that the reason within the individual told him what was right. The right was harmony, to be sure, with a universal rational order, but this rational order was in the soul of man and could be discovered by looking within. This was something resembling the exaltation of conscience or of moral sense which we meet in later times.

While these attempts to find a higher standard of right than mere custom were going on among the Greeks, a similar movement was taking place in Jewish thought. The later Jewish prophets began to speak of the right less in terms of God's might and more in terms of an ideal society which they called "the kingdom of God." This conception was developed by Jesus of Nazareth. According to Jesus, the good was that which worked toward the establishment of an ideal human society in which God's will should be done; but he conceived of God's will as that of a loving father who wished his children to live together in love and mutual service. Jesus thus conceived "the Kingdom of God" as an ideal human society, which he likened to a family with God as father and men as brothers. This idea of the right cannot be considered wholly indefinite. It was indeed taking the family pattern and idealizing it as a pattern for human relations at large. Very definitely, however, Jesus conceived of the good in terms of a reciprocity of service among men in the building up of a harmonious human society. According to him, this was doing the will of God. Fulfilling God's will was the right, but the only possible way in which this could be realized was through the serving of men. Thus Jesus set up, like Plato and Aristotle, a definitely socialized conception of morality, which did not, however, consist in conforming to custom, but in serving a social ideal. This ideal was a social order permeated by love, or modeled upon the family pattern at its best. Unlike the Greek thinkers, Jesus did not emphasize that such a social order must be rational.

Intuitionism

European culture has taken up only very slowly and hesitatingly the teachings of the great ethical thinkers of the Jews and the Greeks. The Epicurean doctrine that the pleasurable is the right or even the Sophist doctrine that might makes right has found ready acceptance in some times and places; but the doctrine that that is moral which works toward the establishment of an ideal social order has had but a limited acceptance among only the enlightened few. The masses still believe that the customary is the right. Protestant Christianity, however, emphasized that the right was to be found in the individual conscience. This was essentially the doctrine of the intuitionist. It held that every man had a "measure" of right and wrong within him, his conscience, and that he could discriminate the right from the wrong by looking within. The intuitionist school ignored the fact that the conscience of the individual is largely a result of the development of culture, and that therefore conscience varies greatly in individuals of different circumstances. Moreover, this was again an individualistic or subjective theory of morality, and while useful as a weapon against tyranny in church and state, it was inadequate as a basis for right conduct. It tended to develop into a mere formalism which made the right or morality consist wholly in right intentions or motives.

Self-Realization

The narrowness of the intuitionist theory gave rise to another individualistic theory, the theory of self-realization. According to the self-realizationists, there is no other conceivable end or goal of life than the development of individual personality. This theory was very well summed up by Goethe when he said, "My supreme duty is to complete the pyramid of my own being." Manifestly, however, this theory is capable of being given an individualistic turn. This was done by Nietzsche, who taught that the end of life was individual self-development. Self-development might necessitate self-aggrandizement and the exploitation of others. While Nietzsche did not represent the self-realization school at its best, he showed that self-realization was essentially an individualistic view of morality and might become dangerous to society. The very fact that Nietzsche was so opposed to democratic ideals and to Christian ethics showed the possibilities, at least, of a too narrow interpretation of self-realization in the hands of some of its devotees.

The Social Conception of Morality

Very gradually ethical teachers have come, therefore, to acknowledge that morality is essentially social, but that only a low sort of morality can be based upon custom. Morality, we are beginning to see, consists in the sharing of a social ideal. *That is moral which works toward the establishment of an ideal social order or a perfect human society.* We have also come to see that we have not yet made out what an ideal social order or a perfect human society would be like, and that therefore we are still in the process of learning what is the right or of determining the correct ideal of life. We no longer assume that we fully know the right. Just as we are learning slowly to spell out what truth is, so we are learning slowly to spell out what the right is. Both are matters of experiment and *discovery.* Indeed, this is the cultural significance of the crude experiments in the history of morality which we have just discussed. It was inevitable, when man began to perceive that the right could not be identified with the customary, that he should confuse it with power, with pleasure, with individual moral sense, or with individual self-realization. But we are now beginning to see that all of these were but crude gropings toward the moral as the socially ideal.

Relativism

Some students of comparative morals, observing the different moral standards of different peoples, have jumped to the conclusion that there are no absolute principles of morality. But when we say that we are slowly learning what the right is, we do not mean that sheer relativism should be dominant in modern ethical conceptions. We are simply acknowledging that we have much yet to learn as to the correct ideals of life and of human relations, especially when it comes to the detailed and the concrete. We have, to be sure, many general principles in morals just as well established as many of the more general principles in science.[2] We know that men cannot live successfully together on a basis of hatred, distrust, dishonesty, and untruthfulness, or even on a basis of pride, fear, and self-will. But in the concrete application of these general principles to social relations and practical human living we are scarcely further advanced than Jesus of Nazareth, who saw that the ideal relation among men must be something like the relations within a family group when it is at its best; that is, that it must be a relation dominated by mutual love, mutual service, and mutual sacrifice.

We begin to see that the good for man is necessarily a social good, and that *morality consists in loyalty to the highest social values.* These values are not given in the consciousness of the individual at the start, but are gradually learned in the process of mental and social development. They are a part of culture and from the social point of view its highest part. They cannot be established by tradition, authority, intuition, or even revelation; but they must be discovered by experience and established by scientific investigation. The scientific spirit is as much needed in the realm of morals as it is needed in the field of science itself.

---

[2] Tozzer rightly sums up the matter when he says (*Social Origins and Social Continuities*, p. 238): "There are certain fundamental aspects of moral nature which are changeless whether found in early or late society. Moral tradition is another thing."

The Trend in Morality

We see that there is a trend toward the rational and the social in that part of culture which we call morality, as well as in all other parts of culture. In spite of the many doubts which have been raised from Rousseau's time to the present about progress in morals, we cannot doubt at least that there has been a progress in man's moral conceptions when we take the whole history of those conceptions into account. Culture is slowly working out a rationalized and socialized morality. It is rational because it includes all elements of value in the moral ideal. It is social because it emphasizes that that ideal is a social ideal. The crude attempts, from barbarism down to the present, to set up some other ideal than mere conformity to custom mean just this. Scientific investigation shows that our moral ideal must ultimately be synthetic, because it must include all elements of permanent value in human life. It must include the ideal of self-development, because an ideal social group is a collection of personalities, each of whom is an "end" in himself. It must include the happiness of every human individual; for we could not assure the most harmonious social life unless all individuals are treated as "ends" and the feelings of individuals are respected. But these things are only means to a larger end, the development of an ideal society consisting of all humanity in which every individual shall have the opportunity to realize the best life which is possible to him. The moral ideal becomes practically a life of service in the up-building of such a humanity, in the creation of an ideal human society. This is the socialized or humanitarian morality of the future, which human society must attain to if it is to achieve normal social adjustment. Thus we again have our curve:

CHAP. XVI

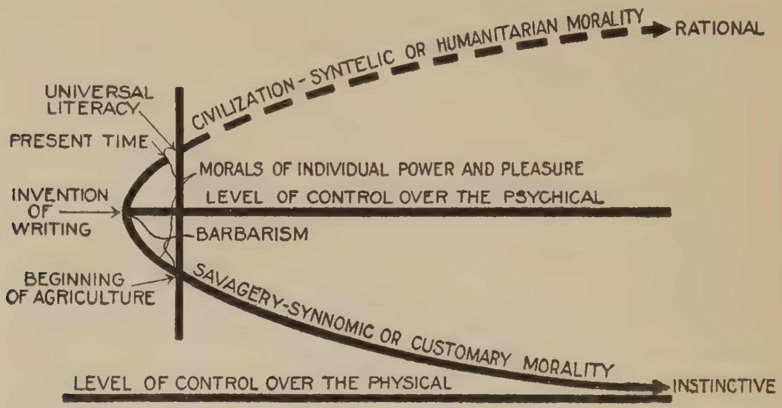
CIVILIZATION - SYNTELIC OR HUMANITARIAN MORALITY
RATIONAL
UNIVERSAL LITERACY
PRESENT TIME
MORALS OF INDIVIDUAL POWER AND PLEASURE
INVENTION OF WRITING
LEVEL OF CONTROL OVER THE PSYCHICAL
BARBARISM
BEGINNING OF AGRICULTURE
SAVAGERY-SYNNOMIC OR CUSTOMARY MORALITY
LEVEL OF CONTROL OVER THE PHYSICAL
INSTINCTIVE

FIGURE 12

The Curve of the Development of Morality

SUGGESTED READINGS

TOZZER, A. M.—*Social Origins and Social Continuities,* pp. 230-241.

Handbook of the American Indians, articles on "Ethics and Morals" and on "Etiquette" by Fletcher.

HASTINGS, J.—*Encyclopedia of Religion and Ethics,* articles on "Ethics and Morality (American and Australian)" by Alexander and King in Vol. 5.

HOBHOUSE, L. T.—*Morals in Evolution* (1906 Edition), Vol. II, Chaps. III-VII.

MARETT, R. R.—*Anthropology,* Chap. IX.

SUMNER, W. G.—*Folkways,* Chap. XV.

WALLIS, W. D.—*An Introduction to Anthropology,* Chap. XXVI.

WESTERMARCK, E.—*Origin and Development of the Moral Ideas.*

CHAPTER XVII

THE DEVELOPMENT OF RELIGION[1]

Religion and Culture

RELIGION is, perhaps, the vaguest and at the same time the most vital element in culture. There have been many acute minds which have failed to see that it is a necessary element in culture at all. So far as we know, the brutes have little or nothing which foreshadows religion; but, for that matter, the brutes have no culture. Religion is peculiar to man alone, just because the animals below man are concerned only with objective surroundings, while man is concerned with a world of values. Religion is a vital and a necessary element in culture because culture is a matter of values, and religion is a supreme attempt to order and, so to speak, evaluate these values.

Religion a Valuing Attitude

In other words, religion, like all culture, is a product of man's power of abstraction together with his conscious realization of the needs of his life. Like art, science, and philosophy, religion is a manifestation of man's intellectual appreciation and evaluation of his universe. It is primarily a valuing attitude toward the universe; but, unlike science and philosophy, it universalizes the will and the emotions rather than the ideas of man. It thus seeks to harmonize man on the side of will and emotion with his world. What reason does for man's intellectual conceptions, religion does for feeling and will; it universalizes them and harmonizes them with the whole of reality. But while religion is primarily an emotional attitude toward our world, it is forced to get its values through intelligence and the imagination. These are means to the values which it seeks; for it deals with an unseen world as well as with the seen. It strives to get values of life, of death, of the sensible and the supersensible, which harmonize with man's aspirations and wishes.

---

[1] Both religion and morality are treated briefly in this work because I have treated them at length in my other books. For a somewhat fuller discussion of the origin, development, and cultural significance of religion, see especially Chapters II and III of *The Reconstruction of Religion.*

The Function of Religion

The function of religion is to harmonize the individual with the larger life of which he is a part; i.e., with the community, and ultimately with the universe. Religion is a means of adjustment used by human beings in establishing a relationship with their fellow beings, on the one hand, and with the universe, on the other. It is a many-sided cultural phenomenon. In one aspect it is participation in, and universalization of, the ideal values of the social life. In another aspect it is a form of social control used by the group to constrain the individual through supernatural sanction to conform his beliefs and actions to those of his group. In another aspect it is a consecration of the individual life to the highest social ends. Finally, it is an affirmation of the reality of the spiritual as over against the material, and a belief in the ultimate dominance and triumph of the spiritual element in human life.

This may seem to describe only the most advanced religious consciousness of mankind; but we have every reason to believe that in some degree this consciousness is characteristic of all men. Primitive man, with his power of abstract thought and his imagination, had to evaluate nature and the possibilities of life not less than ourselves; he had to explore with his imagination the unseen as well as the seen. If we recall the traits of the primitive mind, that it was in the sense in which we have explained, pre-experiential, pre-scientific, and pre-logical, we shall have no difficulty in understanding the origin of religious beliefs and attitudes. The primitive mind naturally interpreted the world in terms of itself; in other words, in anthropomorphic terms. It not only believed that everything was related, but that everything was possible, and changed in most miraculous ways. The world to the primitive mind was not only a world for wonder, but a wonder-working world. Primitive credulity, or lack of critical ability, gave rise to all sorts of beliefs, simply because experience had not sufficiently accumulated to suggest the possibility of contradictory beliefs. Hence the primitive mind read itself into everything with which it had dealings, much the same as we tend to do when we think uncritically. The savage mind is more completely guided by sheer imagination than ours, because it has nothing with which to check up the vagaries of imagination. Let us keep these facts in mind as we discuss the development of religion.

Power the Fundamental Concept of Religion

Perhaps the earliest and deepest concept which lies at the root of religion is the concept of power. The world manifested itself to the primitive mind as a world of power which worked in most marvelous ways. Usually, however, this power was considered to work in a personal way, or like the power which was experienced in one's own conscious life. Primitive man thought that the energy and power manifested in the universe worked essentially in the same way as the energy and power which he experienced in himself. Therefore, the mysterious, wonder-working power which was considered to pervade all nature was thought of as animated and more or less personal. This was particularly the case when anything extraordinary or out of the way needed to be explained. Man felt an intangible power within himself which gave him strength, inspiration, courage, love, and gratitude. He did not consider this power as merely physical or ordinary. It was above the ordinary, and so in a way supernatural. Fear and reverence became attached to persons and things which showed this extraordinary power. Such persons or things were considered as taboo or sacred. They must be dealt with in ways which showed fear and reverence. Upon these conceptions of a supernatural, wonder-working power in nature, and of sacred persons and things, the whole system of religious ideas seems to have been built up.

Manaism

The simple stage of religious consciousness which we have just described is more or less discernible in the religious conceptions of many peoples, especially in the Manitou of the American Indians and in the Mana of the Melanesians. For this reason this stage of religious consciousness has been called "manaism"; others have called it "pre-animism." But no such stage of pure manaism has ever been found to exist among any people. It remains therefore a sort of hypothetical stage with which to start the development of religion. Some students of religion have not hesitated to say that this stage was one of primitive monotheism, because, they claim, "the intuition of God" is to be seen in this perception of a mysterious, wonder-working power, pervading all nature, which is essentially animate and personal in its ways of working. But scientifically this is hardly an allowable statement; for as yet the idea of God in our sense of the word does not exist.[2] The gods remain yet to be born, and we shall see presently how they were born.

Animism

We have already said that the primitive conception of a mysterious, wonder-working power pervading man and nature was that it was non-physical, animate, and personal. Hence it was easy to identify this wonder-working power with the inner essence of man's own life; that is, with his mind or soul. Gradually the idea seems to have developed that this mysterious power was able to exist apart from the object in which it resided. Thus was born the conception of a "soul" or "spirit" which might exist apart from the body. Many experiences helped man to reach this conception. For example, in his dreams man had experiences while his body lay quietly asleep, and he saw other human beings whom he knew were far distant from him. Thus he conceived that the soul or spirit was something separate from the body. Dreams, swooning, and death aided him in reaching this conception; but through his power of abstraction he was bound to reach this conception of a soul which existed independent of the body anyway. Thus man gradually came to believe in a world of spirits, which surrounded him, which had mysterious powers, and whose actions explained extraordinary occurrences. Thus out of the dualism of the ordinary and the extraordinary, the natural and the supernatural, had grown the further dualism of the physical and the spiritual. This further step in the development of religion is known as "animism," from *anima,* the Latin word for soul. Practically all peoples have more or less developed animism. Animism obviously is a further step in the development of religion because man now more definitely interprets the world in terms of himself, of his will, and of his values.

---

[2] The evolution of the idea of God is taken in this chapter, for the sake of brevity, as illustrative of the evolution of religion in general, since to all except the pure behaviorist it would appear to be central in the cultural complex of religion.

Totemism

A third phase of religious development appears among some peoples in which animals and plants become objects of superstitious veneration. Man in his food process was particularly dependent upon the animals and plants which surrounded him. It was natural for hunting peoples to see the particular manifestation of the mysterious, wonder-working power in the animals which they hunted or in the plants upon which they were dependent. Therefore, they regarded these as sacred. They often took their names from these and claimed descent from them. Religious reverence therefore attached itself to this plant or animal, which was conceived of as having some mysterious relation to the group, usually as a hypothetical ancestor, and the name of which was borne by the group. Such a plant or animal was known as a "totem," and the stage of religious and social development was known as "totemism." Durkheim thought that this stage was the primitive stage of religion;[3] but not all peoples, apparently, have reached the totemistic stage, and hence we must consider that animism and pre-animism are prior to totemism. Perhaps, however, we may say that totemism was the first socially organized religion. Under totemism the whole social life of the group was brought under religious control. The system of kinship and of group relationship was based upon a conceived relation to the totem. Food-getting, art, and education were also based upon a conceived relation to the totem and so more or less controlled by totemism.

The peoples which are ordinarily taken as illustrations of primitive culture usually show a mixture of all three of these phases of religious consciousness. It is not going too far, therefore, to say that primitive religion was usually a compound of manaism, animism, and totemism. These phases of religion are psychologically distinguishable, but culturally they are usually blended.[4] This form of religion seems to have persisted throughout the stage of savagery and far into barbarism. It is a sort of a confused religious consciousness out of which the more definite religions of later times arose. It may be pointed out, however, that these essential elements in religion have persisted in all phases of its development and survivals of them are to be found even in the most advanced religions.

Ancestor Worship

A great change in religion came with the beginnings of agriculture and the domestication of animals. It might seem that the domestication of animals would have tended to perpetuate totemism, as some students think that the process of domestication was closely allied with totemism. However, in the Old World the domestication of the larger ungulates gave rise to the pastoral industry and to the nomadism and warfare which we have already seen accompanied it. Inevitably the domestication of animals and the pastoral industry gave rise to the ascendancy of the male element in society. Men became, especially in their rôle as fighters, the heroic class. The mighty warrior unquestionably had, in the eyes of his associates, a great deal of the mysterious, wonder-working power connected with his personality. This was all the more true if he were the head of a large group or household made up of his immediate family, slaves, and retainers, who regarded him as having absolute power. It was inevitable that the head of the patriarchal family should be regarded as semidivine during his life and as one of the gods after his death. Thus arose ancestor worship, which was the main religion of all the civilized peoples of Europe and Asia when they emerged into history. While animistic nature worship persisted alongside of ancestor worship, all gods now began to become definitely anthropomorphic, as perhaps they had always been implicitly, for the souls of the departed ancestors which were worshiped were once men. Hero worship, or ancestor worship, in other words, definitely made the gods over into human form. The souls of the departed heroes or ancestors were, if not the highest gods, at least the most potent and reverenced gods. Each family had its own gods and its own domestic worship. The gods of each group, therefore, tended to be different. This stage of religion fostered the development of the domestic virtues and played a great part in fixing the traditions of groups. The veneration of the aged and of departed ancestors proved to be a most ultra-conservative influence in human society. Wherever isolation was possible, as in the case of the Chinese, ancestor worship and isolation together gave rise to static civilization. But most ancestor-worshipping groups in western Asia and in Europe came into conflict with one another, conquered or were conquered, and amalgamated.

---

[3] *Elementary Forms of the Religious Life*, Book II. For a brief statement of the controversy over the relation of totemism to religion, see the author's *Reconstruction of Religion*, p. 51.

[4] Schleiter (*Religion and Culture*) and others have maintained that no classification of the stages of religious culture is possible; but the classification is psychological rather than historical.

Polytheism

Out of this process of the amalgamation of ancestor-worshipping groups easily grew another fairly definite stage of religious development, which we term "polytheism." When many groups were brought together into one larger political or cultural group, their gods were naturally brought together also. Thus resulted a great pantheon of gods, sometimes numbering millions. These gods of course included all the nature gods and all the ancestral spirits, though the ancestral spirits tended to remain the property of the smaller groups, especially the kinship groups. All the gods were conceived of, however, as highly personalized beings, and an imaginary community of gods was developed which more or less reflected the behavior and conditions of the community of men. In polytheism there was doubtless also the tendency, especially in its later stages, to reduce the number of gods by assigning one powerful god to dominion over a whole class of objects or actions. Thus, there was a god of war, a god of love, a god of fertility, and so on.

Henotheism

If the polytheistic stage may be regarded as transitional, as Comte insisted, even more transitional was the stage in which one supreme national god gradually developed out of the polytheistic pantheon. This was the tendency not only because the society of gods tended to a monarchic or autocratic organization, but because each national group selected its own national or tribal god for its worship. The early Jews, for example, seem to have fastened upon Yahveh as their particular national god. The existence of other gods was not denied, but Yahveh was considered the particular god of the Jewish people. Several other peoples have shown similar tendencies. There can be no doubt that this "henotheistic" stage was transitional to true monotheism. Such national gods tended to unify their peoples into strong, nationalistic groups. Religion in this stage is crudely anthropomorphic, and the deity is thought of as essentially a human monarch, sharing in practically all respects the traits of his people, though, like the human monarch, idealized in respect to all his qualities

Monotheism

It is doubtful if henotheism has been fully outgrown in the modern civilized world, and whether monotheism has fully arrived. In practically all existing popular religions there are survivals of all the former stages of religious evolution. We should not be surprised, therefore, to find survivals of the nationalistic stage with its highly anthropomorphic, monarchic god. In Western civilization, monotheism has tended to take a deistic form, in which God is still considered a monarch dwelling outside of the universe. This is not only a popular conception of the masses, but it is stated as the highest form of religious truth in the creeds of one or two denominations of the Christian church. Among Oriental peoples, on the other hand, monotheism has tended to take the form of pantheism, a religion which tends to identify God with the impersonal forces of nature, and which often among the masses, as in India, permits the continuation of nature worship in various forms.

Theism

Philosophical and theological thinkers have proposed theism as a synthesis of the best elements in both deism and pantheism. In the theistic conception, God is both personal and super-personal. He both transcends nature and is in nature. He is no longer set over as against nature or humanity. He is identified with humanity just as he is identified with nature; but he is also considered to be something more and infinitely greater than either nature or humanity, as these terms are ordinarily understood. God thus becomes the locus of all values, the rational and moral ground of the universe and of human life, the purpose which runs through the world-whole, making for harmony between all of its parts. God is thus conceived not as something apart from man, but as creative purpose working in man and in human society as well as in the whole universe. This purpose is conceived of as moral and rational in the highest degree. This conception is what is known as ethical theism.

It is hardly necessary to point out that this conception of God as the power in the universe which works for righteousness and as the embodiment of all enduring values represents a stage of cultural evolution which in some ways parallels primitive manaism. Ethical monotheism, in other words, in its conception of a creative moral purpose working in our world, is not unlike the conception of a primitive, wonder-working power. The final conception has become rationalized and socialized through the general progress of culture.

Ethical Religion

This is perhaps most clearly evident when we consider the ethical sanctions implied in religious attitudes. It was a mistake of the early students of religion to divide religions into the ethical and the non-ethical. With very few exceptions, all religions have been ethical in the broad sense of the word. All religions, in other words, have tended to support and sanction certain ways of conduct at the expense of other ways. Primitive religion, like primitive morals, sanctioned the customary. We have already seen how difficult it is to separate primitive morality and custom; and the same may be said of primitive religion. "The religion of a savage," says Dr. Marett, "is his whole custom so far as it appears sacred." Indeed, the sacred seems to have become very early identified with the traditional and the customary. Thus, primitive religion was profoundly moral, not less than our own; only the morality which it sanctioned was the morality of custom. The tendency of religion to sanction the customary has not yet been outgrown. Nevertheless, religion in the teachings of Gautama Buddha, of Jesus, and of several other religious reformers very definitely breaks with custom and attempts to give its sanction to ideals of conduct not yet realized. Thus we have the same division in religion as in morals; into custom-binding and idealistic. Idealistic or progressive religions, so far as we know, are relatively recent in human history, having existed only for the last three thousand years, and during that period being practically confined to the more enlightened classes.

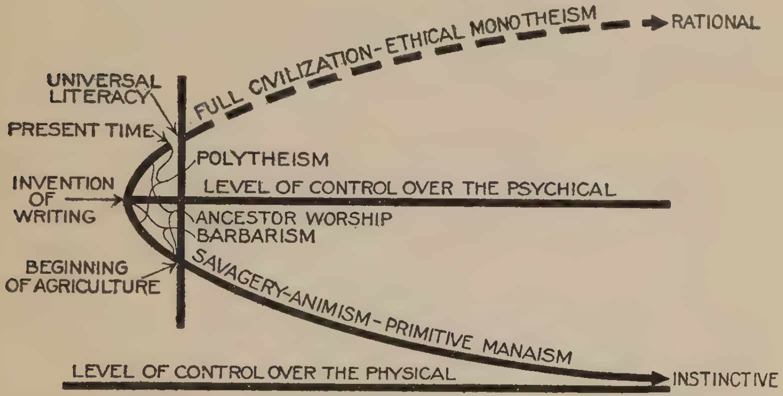
FULL CIVILIZATION-ETHICAL MONOTHEISM
RATIONAL
UNIVERSAL LITERACY
PRESENT TIME
POLYTHEISM
INVENTION OF WRITING
LEVEL OF CONTROL OVER THE PSYCHICAL
ANCESTOR WORSHIP
BARBARISM
BEGINNING OF AGRICULTURE
SAVAGERY-ANIMISM-PRIMITIVE MANAISM
LEVEL OF CONTROL OVER THE PHYSICAL
INSTINCTIVE

FIGURE 13

The Curve of the Development of Religion

The Trend of Religious Evolution

During the tumultuous times of barbarism and semi-civilization, many experiments were tried in religion, as in other fields of culture. The gods multiplied and became of every description, but for the most part were so constructed as to approve the actions of men, and to uphold the existing social order, no matter how crude and brutal it might be. Religion was simply put at the service of those into whose hands social and political power happened to fall. But protests against this prostitution of religion to the baser attributes of human nature and human society began to accumulate. They came to a head in such religious teachers as Gautama Buddha, the later Jewish prophets, and Jesus of Nazareth. All of these demanded a different sort of human world, and began to teach religious systems which were idealistic rather than customary. The system of Buddha, however, envisaged the individual soul, while the system of Jesus envisaged the social order which would correspond to the divine ideal, a "Kingdom of God." At the same time Jesus emphasized the idea of the fatherhood of God. Thus he completely humanized and socialized religion. We discover, then, that religion pursues the same curve in its development as do the most typical forms of culture (see Figure 13 on preceding page).

SUGGESTED READINGS

Marett, R. R.—*Anthropology,* Chap. VIII.

Durkheim, É.—*Elementary Forms of the Religious Life,* Bk. II, Chaps. I-IV.

Ellwood, C. A.—*The Reconstruction of Religion,* Chap. II.

Frazer, J. G.—*The Golden Bough,* Abridged Edition, Chaps. III, IV.

Goldenweiser, A. A.—*Early Civilization,* Chaps. X, XI.

Handbook of the American Indians, articles on "Orenda," "Totem," and "Wakonda."

Jones, W.—"The Algonkin Manitou" (in Thomas, *Source Book for Social Origins,* pp. 683-692).

Kroeber, A. L.—*Anthropology,* Chap. XII.

Lowie, R. H.—*Primitive Religion,* Part II.

Marett, R. R.—*The Threshold of Religion,* Chaps. I-IV.

Sumner, W. G., and Keller, A. G.—*The Science of Society,* Vol. II, Part IV.

Tylor, E. B.—*Anthropology,* Chap. XIV.

Tylor, E. B.—*Primitive Culture,* pp. 417-431.

CHAPTER XVIII

THE DEVELOPMENT OF EDUCATION AND SCIENCE

CHAP. XVIII

Culture and the Educative Process

WE have seen that from the beginning all culture has depended for its continuity upon the education of the young. The cultural process is essentially an educative process. The making of the simplest physical tool has usually necessitated the learning of the process of making from some other individual. *The whole of culture has, therefore, been preserved from immemorial time by a process of education.* It was, of course, no different in the making of institutions than in the making of physical tools. They could not have been passed along from generation to generation unless the knowledge, values, and standards which they embodied had been taught the young by their elders. The process of cultural development in humanity, then, has been essentially a learning process; for its gains are transmitted to the generations only as the young are educated to appreciate and conserve the achievements of the past. When we study the educative process, therefore, we are studying the heart of the cultural process.

Primitive Education

This was as true in primitive times as it is now. It is usually supposed that among primitive peoples the education of the young was not a matter of conscious social purpose; that it took place spontaneously through imitation of the elders and merely through participation in their activities. A careful study of the life of surviving primitive peoples, however, shows that this is a mistaken idea. Man is undoubtedly an imitative animal, but to suppose that his natural tendency to imitate is so strong that it is sufficient, without any social control, to carry through the generations the achievements of culture, even under the simplest conditions of life, is a conclusion unwarranted by social facts. On the contrary among the uncivilized, as well as among the civilized, there is a vigorous compulsion to make the young acquire the customs, standards, and beliefs of their group. This is well illustrated by the Australian aborigines, whose so-called initiation ceremonies are very evidently designed to educate the young. The compulsion of the group to make the young acquire the knowledge and customs of the past is quite generally effected by magical and religious practices; but physical coercion and social ridicule are not unknown means of education among primitive peoples.

The deliberate education of the young among such peoples is clearly shown by their vocational practices. Specialized skill came very early to be prized in human society and to be preserved and transmitted by deliberately educative processes. Thus, among the American Indians, skill in making arrowheads and other stone tools was highly prized. Such skill was transmitted from generation to generation by deliberately teaching the young men who showed proficiency in learning the art, under what we would now call a system of apprenticeship. Oftentimes a son would succeed a father in such a skilled vocation, and thus a tradition of skill along certain lines was built up in a specialized group within the community. The same process could be observed in the work of women. If one woman became a skilled basket maker, she almost invariably endeavored to pass her skill along to younger women whom she taught.

What has just been said about the carrying on and development of technical processes among primitive peoples by the education of the young is equally true of all the arts and practices of primitive life. Hunting, fighting, hut-building, skin-dressing, and even spirit-scaring all had their techniques in which some persons were recognized as more adept than others and were sought out and utilized as teachers. Thus all social achievements among primitive peoples were transmitted essentially by educative methods just as among ourselves. Only it is true that the education in primitive times was much more informal. It was accomplished almost wholly by participation in actual activities of the group, under what we would now call a system of apprenticeship for the young. The young boy accompanied his father or some older person on the hunt and thus learned to hunt. The young girl watched and aided her mother in the preparation of food and clothing. There were, of course, no schools and no teachers designated as such, though if any young person wished to learn some very specialized form of skill, the reputation of its possessor in a narrow group was sufficient to make him sought out as the teacher.

Primitive Education Moral

Professor W. I. Thomas has pointed out that primitive education, so far as it was formal, was largely what we would call moral education.[1] He says that occupational practice was picked up informally in the way which we have just indicated; but that the formal educational system in savage society was designed to secure the solidarity of the group. It was therefore very thorough with reference to food regulations, marriage customs, religious ceremonies and the like. This emphasis upon the moral character of primitive education is contrary to popular conception; but it is undoubtedly correct. While the primitive group esteemed occupational training and skill, its concern was even more, as we have already implied, with the preservation of its customs. The power of religion and of government was maintained, in primitive times as in our own, by education. Moreover, it must be remembered, as Thomas insists, that there was in primitive times no large body of exact knowledge to transmit to the young. Hence, education inevitably took on the character of initiation into the occupations and social customs of the group.

---

[1] *Source Book for Social Origins*, p. 317.

CHAP. XVIII

The Origin of Formal Education

This relatively informal system of education continued not only throughout savagery but throughout the whole pre-literate period. Even the invention of agriculture did not change the character of the educative process. The cultivation of plants and the care and breeding of domestic animals were taught by the system of apprenticeship, or by direct participation of the learner in the occupation. The invention which changed the form of the educative process was the invention of writing. With the invention of written language, a new art was introduced which was itself difficult to master. As more and more of the social tradition became reduced to written form, it became necessary that there be formal education for those who wished access to it through written literature. Writing seems to have been practiced first by the priestly class, and the first traditions which were committed to writing were prayers, hymns, and other religious ceremonials and traditions. Thus grew up a religious literature, which it was necessary for the priest class to master; and in this way the class of priests became the first class educated in the arts of writing and reading. Thus it is not unfair to say that they became the first formal teachers, though, as we have already seen, skilled artisans from the earliest times had been teachers within their vocational lines. It is also not unfair to say that the first formal schools were those organized by the priestly class, though the informal school of occupational apprenticeship had always existed from the very beginning of culture.

The Work of the School

It is not surprising, since this was the origin of the formal school, that the school tended to become an agency for almost purely linguistic and literary education, and has remained such down to very recent times. Only within recent times has there been a general perception that the functions of the school should be much broader than those of linguistic and literary education. Only very slowly has the school moved toward giving a broad social education. Intellectual education was a step beyond linguistic education. The perceptions that intellectual achievement is at the bottom of all progress; that society as it matures lives more and more by ideas; and that disciplined intelligence must be the main reliance of every human group for the achievement of a high culture, led to making intellectual training the main function of the school and the end of formal education. This process was begun by the Greeks, but it achieved its culmination in the nineteenth century. In the meantime the religious, political, artistic, technological, and scientific traditions were expanding and becoming more and more the main content of our general culture. Accordingly, the schools in their formal education took up first one and then another of these traditions. The schools of the Middle Ages devoted great attention to education in the religious tradition. Schools for the preservation of the artistic tradition began to develop in the Renaissance, but not until the nineteenth century was reached did the schools begin to pay much attention to the scientific and technical tradition of our culture. As language is the vehicle of all social tradition, linguistic education has necessarily remained the foundation of all our education.

The Function of the School

It is beginning more and more to be perceived, however, that the true function of formal education and of the school is to reproduce and control the social process in such a way as to aid in the highest degree the general development of culture. If this is so, then the end of education must be to produce the fully rational and social man who can help to build a culture which embodies the true, the good, and the beautiful in the highest degree. Linguistic education and even intellectual training remain means to this end.

We are returning again, then, to the conception of education which we found illustrated in the informal education of primitive life, namely, that it was a process of participation of the individual in the whole life of the community. We are beginning to see that the rational end of the controlled social process found in the formal education of the school should be the highest degree of welfare for the community, to be attained by securing the adjustment of the individual, not merely to the organization and institutions of society as they exist, but even more to the social process itself as a process of achievement, of learning, and of progress. This means concretely that the individual should be fitted by his education to function efficiently and dynamically in every social group of which he is a part, from the family and local community to the nation and the great community of humanity. It means that the aim of education should be to produce in the individual that complex of dynamic, socially intelligent qualities which we have come to associate with the term "good citizenship."

The Social Trend in Education

Thus education is becoming once more social and moral on a much higher plane. That is, the end of education remains as in primitive times social and moral, though it has now a much greater body of exact knowledge to accompany it; and this furnishes it its real foundation. Thus we see again the typical curve of culture. We began with a primitive informal social and moral education and we end with a formal social and moral education on the rational level (see Figure 14).

Culture and the Accumulation of Knowledge

Closely associated with the growth of education and the whole development of culture has been the accumulation of knowledge. Of course, at the beginning, as we have already pointed out, man had no exact, tested knowledge, and therefore no science in our sense of the word. Very slowly he has learned to accumulate knowledge and to test it by various methods of experience. In a sense this growth of tested knowledge in human society epitomizes the whole history of culture. At first man's matter-of-fact knowledge seems to have been relatively small in amount, as almost everything that he believed was so colored by imagination and feeling. Gradually, however, observation taught him certain facts which proved to be the same for all observers. Matter-of-fact knowledge began to grow and to be transmitted from one generation to the next.

Primitive Science

Primitive science was not separated from primitive religion. Religion, magic, and science, even among the pre-literate peoples of recent times, remain confused. The uncritical primitive mind was evidently not able to distinguish scientific conceptions from conceptions in these other realms. Yet primitive science and primitive mythology should not be confused, and it is not quite correct to say that all of man's intellectual conceptions were at first mythological. Some seem to have been matter-of-fact from the beginning. Slowly the area of these matter-of-fact conceptions enlarged with man's accumulation of experience, and the mythological way of thinking was very slowly superseded by a matter-of-fact way. These early matter-of-fact ideas were the beginning of science, but as we have already said, such knowledge was not detached from mythological conceptions. It remained, at least, a part of religion.

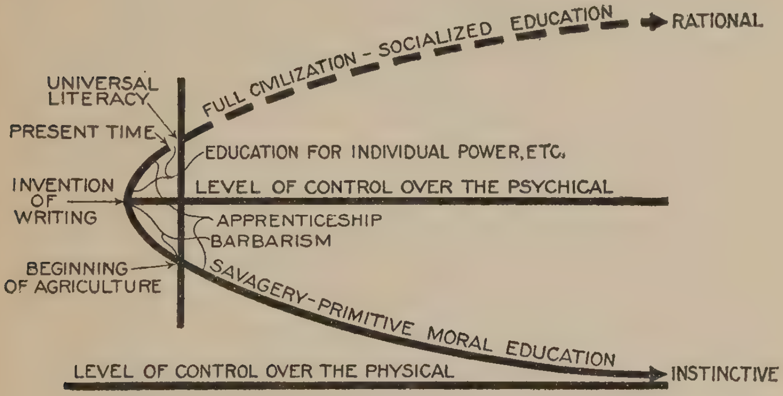
FULL CIVILIZATION - SOCIALIZED EDUCATION
RATIONAL
UNIVERSAL LITERACY
PRESENT TIME
EDUCATION FOR INDIVIDUAL POWER, ETC.
INVENTION OF WRITING
LEVEL OF CONTROL OVER THE PSYCHICAL
APPRENTICESHIP
BARBARISM
BEGINNING OF AGRICULTURE
SAVAGERY-PRIMITIVE MORAL EDUCATION
LEVEL OF CONTROL OVER THE PHYSICAL
INSTINCTIVE

FIGURE 14

The Curve of the Development of Education

CHAP. XVIII

Science and Early Religion

Hence it was the priestly class which first began systematically to gather and transmit in any considerable amount these observations of facts, though the skilled artisans in various occupations had even earlier begun to do so. By the time Egyptian civilization is reached, the priestly class had already accumulated considerable knowledge of natural phenomena. We have seen already that the priestly class had the first formal schools, were the first to practice writing, and therefore were naturally the first to begin deliberately the accumulation and transmission of knowledge. Thus it was religion, so to speak, which first began deliberate fostering of science. Yet it is also true that it was frequently religion and the priest class which placed the greatest obstacles in the way of the discovery and diffusion of new knowledge.

The Influence of the Invention of Writing

The invention of the art of writing was crucial for the development of science. It made possible the preservation and accumulation of tested knowledge to an extent before unknown. It also made easy its organization. Moreover, ideas reduced to written form were not only more easily preserved and diffused, but also more easily compared and criticized. This stimulated critical thought and philosophical speculation. Indeed, it may justly be claimed that, without the written symbol, the science of formal logic and the critical method of philosophy would have been impossible. The art of writing, in any event, was a necessary step in the development of critically established and organized knowledge. Preservation, organization, and accumulation now became practical.

The Growth of Science

The amount of tested or scientific knowledge grew very slowly. Even among the Greeks the amount of knowledge which we would today call scientific seems to us very small. Naturally, tested knowledge, as Comte pointed out, began with the most general facts or phenomena, such as those of number and space. Pythagoras and his school were able to establish tests for a number of simple mathematical facts. It is noteworthy again that this school of Pythagoras was essentially of a priestly or religious character. An able succession of teachers and thinkers increased the amount of scientific knowledge which the Greeks possessed; but even Aristotle, the founder of the modern sciences, had scarcely more tested knowledge at his command than a schoolboy of twelve might now readily master.

The growth of scientific knowledge often seems to have been one of the steadiest and surest of cultural processes. However, it has been subject to many interruptions, and much tested knowledge has at times been lost. It is notorious that many of the exact observations and tests made by the thinkers of classical antiquity were lost. Indeed, the whole mass of accumulated scientific knowledge of the classical world almost suffered extinction with the disturbances which preceded and followed the downfall of Græco-Roman civilization. As we have already noted, so completely had the scientific knowledge of the classical world disappeared at the height of the Dark Ages that there was no one left in Europe who knew how to compute the area of a triangle.

Through the Middle Ages scientific knowledge began again to accumulate, again fostered by the priestly class. Yet it was the same class again which persecuted the pioneers in modern scientific discovery from Roger Bacon to Galileo, and it was not until the power of the priestly class was broken by the Renaissance and the Reformation that the scientific investigation even of physical nature attained to any degree of freedom. The Renaissance did much more than restore and diffuse the knowledge of classical antiquity. It immensely stimulated investigation and discovery, learning and education. A new world of facts was opened up by these investigations and discoveries, and this new information was rapidly diffused through the invention of the art of printing. Hence it was not until the Renaissance that the amount of scientific knowledge in Europe began even to approximate that of classical antiquity; and not until the time of Francis Bacon and of Galileo in the seventeenth century was there, so to speak, a rebirth of science, though we should not forget the earlier work of such men as Copernicus and Kepler.

Reasons for Late Development

The late development of science, in the sense of tested knowledge, is not difficult to understand; for there had to be a high development of general culture before conditions of exact observation and testing of knowledge could be devised, and the diffusion of knowledge could proceed. Linguistic and literary education, for example, had to make considerable progress before there could be much accumulation and diffusion of tested knowledge. Relative conditions of peace had to be established before this process could go on without too serious interruption. Instruments of precision and other methods of measuring phenomena had to be invented. Finally, the art of printing had to be developed to aid the accumulation and diffusion of knowledge. These are some of the reasons why science has been the slowest and latest phase of human culture to receive development.

Aberrations of Science

Like all other phases of culture, science has been subject to all sorts of aberrations. Like all of culture, it has proceeded by trial and error. Developed largely out of primitive magic and mythology, it has been placed first at the service of one interest and then of another. Early science undoubtedly developed largely in connection with primitive agriculture. War early sought and received from science great aid in its development. The desire to transmute baser metals into gold and the desire to find an elixir of life, it is well known, had great influence in the early development of science. Thus science was early placed at the service of superstition, human exploitation, and commercial interests. Custom, tradition, prejudice, and selfish interests of every sort have had a powerful influence in its development. Gradually, however, science has been freeing itself from these retarding and perverting influences, and is more and more rising to the plane of impersonal, critically established knowledge of every phase of nature and of man. Even during the nineteenth century, however, science remained relatively undeveloped. It would be fair to say that it remained immersed in its beginning tasks, the exploration and understanding of physical nature, and scarcely arrived at seriously undertaking the exploration and understanding of human life itself. Indeed, there are still many who hold that science can concern itself only with the material and the physical; that it must rigorously exclude from its consideration the psychic or the mental; and that *right* is not a scientific category. Evidently science still remains strongly influenced by metaphysical and personal prejudices. It has not yet, at least in a majority of scientific men, attained to the completely open mind. It is still in bondage to old traditions, and to class and personal interests.

The Ultimate Dominance of Science

But if science be tested knowledge, it must ultimately concern itself with all phases of human life and human culture, as well as with physical nature.[2] Moreover, the significance of science for the general development of culture exceeds that of any of its other phases, since culture rests upon experience and knowledge. Hence, *science is bound to dominate all the other phases of culture.* This is frequently denied by those who are interested in the artistic, the moral, and the religious phases of culture; but it is denied only because too narrow a view

---

[2] Much, of course, depends upon the definition or conception of science which we accept. If *science* be limited to what can be "weighed and measured," then there is little in the historical process which can be brought under its tests. We have argued that this narrow conception of science is unwarranted from the whole history of the scientific movement. In its broadest sense, as the word implies, science includes all *tested* knowledge, that is, tested by experience, and so tested qualitatively as much as quantitatively. If there is another limitation which should be made to science, it is that it is *organized* knowledge. The generalizations of theoretical science also always rise above the local and temporal. The three marks of scientific knowledge, then, are that it is (1) tested by experience, (2) rationally organized, and (3) universal in its application. In this sense there can be sciences of culture as well as sciences of nature.

CHAP. XVIII

is taken of the matter. The distrust of science which we find in our present world, if allowed to develop, could only end in mysticism, in pessimism, and in reactionary traditionalism.[3] It is the fragmentary, incomplete, and materialistic science of the present time which gives rise to such distrust. The remedy is evidently in the fullest and freest development of science itself.

The Final Development of Science

Already in the nineteenth century there were movements toward the extension of the scientific attitude and of scientific methods to all phases of human culture. The social sciences were reborn in the nineteenth century. Even religion became an object of scientific study within that century. Increasing complexity of life and culture increasingly demanded the guidance which only accurate knowledge could afford. Hence, science began to become not only rationalized, but socialized. In other words, science began to develop upon a basis of social utility and for the sake of social utility. Science, however, still remains very imperfectly socialized, and the social sciences lag behind in their development. In part this is due to the slowness of the accumulation of knowledge along these lines, but in part it is also due to the traditions of the past and to the selfish interests of the present, which oppose the advance of scientific knowledge along social lines.

Ultimate Unity of Science and Religion

The socialization of science, through the development of the social sciences and of the social attitude in all the sciences, is bound to bring science again into harmony with religion, especially when religion, as a valuation of the universe, itself becomes suffused with the scientific spirit. This Comte foresaw when he predicted that the science and the religion of the future would again become one, at least in spirit and aim. Comte's own particular scheme for bringing this about was probably premature; but this should not blind us to the trend in science toward socialization and rationalization, which is bound in time to bring it into harmony with the religious aspirations and valuations of men. Thus, science will end as it started, as essentially one with religion, and thus again, in spite of the aberrations within the historic period, we have our typical curve of human culture:

---

[3] A symptom in this direction is evident in the recent declaration of one of our "hyper-scientists" that "science cannot be a Messiah." The whole statement is, of course, ambiguous. If tested knowledge is not to guide man, it is hard to say what can. If we cannot trust organized intelligence when it is placed at the service of good will, then there is nothing that man can trust. Even religious faith should be based upon tested knowledge. Probably the position of the critic just mentioned, a position which is very popular in certain scientific as well as in certain religious circles, is due to the narrow conception of science which we have just criticized. The distrust of science is thus largely due to the narrowness of some scientists of the present.

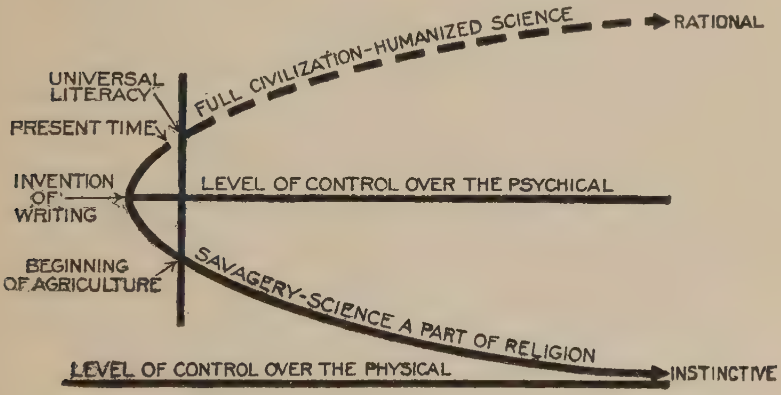
FULL CIVILIZATION-HUMANIZED SCIENCE
RATIONAL
UNIVERSAL LITERACY
PRESENT TIME
INVENTION OF WRITING
LEVEL OF CONTROL OVER THE PSYCHICAL
BEGINNING OF AGRICULTURE
SAVAGERY-SCIENCE A PART OF RELIGION
LEVEL OF CONTROL OVER THE PHYSICAL
INSTINCTIVE

FIGURE 15
The Curve of the Development of Science

SUGGESTED READINGS

JUDD, C. H.—*The Psychology of Social Institutions,* Chaps. XVII, XVIII.

CASE, C. M.—*Outlines of Introductory Sociology,* pp. 268-277.

HAMBLY, W. D.—*Origins of Education Among Primitive Peoples,* Chaps. V, VI.

HASTINGS, J.—*Encyclopedia of Religion and Ethics,* articles on "Education (American)" by Chamberlain in Vol. 5 and on "Science" by Thomson in Vol. 11.

HOWITT, A. W.—*Native Tribes of South-East Australia,* pp. 529-641, 756-770 (in Thomas, *Source Book for Social Origins,* pp. 213-234, 258-264).

THOMAS, W. I.—*Source Book for Social Origins,* pp. 317, 346.

TYLOR, E. B.—*Anthropology,* Chap. XIII.

CHAPTER XIX

CULTURAL RETROSPECT AND PROSPECT

CHAP. XIX

The Nature of Culture

IF now we look back through the telescope of anthropology at our subject, human culture, we see once again culture as the distinctive creation of man. *It is the result of man's intellectual reaction to and utilization of his environment.* Starting only with the capacity to learn, man has gradually learned how to adjust himself to his environment and to utilize the materials which nature has furnished. Through inventive processes, which have come sometimes by accident, but mainly by deliberate experimentation, he has found means of controlling his adjustment and utilizing the materials which his environment has provided. Often his experiments were fruitless; often they resulted in mistaken adjustments or in adjustments which proved to be of only temporary validity. Man has learned, however, from his failures as well as from his successes. Gradually he has learned how to control nature and his own behavior. It has all been for man a learning process, even though it has been scattered among unnumbered generations. Successful adjustments once made have become habitual, and after diffusion within a group have become fixed by custom and finally built up into institutions.

Cultural Lags

Custom, habit, and institution have often inhibited further learning by their set patterns, and have brought about retardation if not stagnation in the cultural process. These retardations, like the mistakes in culture, have gradually been eliminated. Crises demanding change in group habits had to be met. The process of learning through attention and control started social change and social readjustment afresh. Thus some of the errors and imperfect adjustments of early times were gradually eliminated by the necessities of readjustment in a changed environment. The driving forces in such cases were food, numbers, struggle, and selection. Errors might also be perceived by inventive and imaginative minds and by the leadership of those who were able to think ahead of their groups. But as a rule men have been slow to change until circumstances have forced change upon them. While man's mind is naturally exploring and experimental, especially in youth, groups seem to be inherently opposed to change in their customs and institutions. This is probably due to the inertia of the mass or the slowness with which new ideas and adjustments can be diffused through a group. But it is even more due to the inertia of habit, which affects the beliefs and opinions as well as the behavior of men. Only within very recent times have men begun to seek after the best customs and institutions, the best beliefs and standards; and they do so only half-heartedly yet. Even yet progress in many lines of culture is detested by many peoples.

Slow Progress of Culture

In spite of mistakes and retardations, gradually man has risen from the brute plane to the human. At first, through the thousands of years of his hunting stage, the rise of the curve of culture was very slight. It took an upward leap with the invention of agriculture, but war and the temptation to the plunder and exploitation of other human groups brought in many questionable adjustments, such as cannibalism, slavery, polygamy, and autocracy. The invention of writing gave another upward leap to the curve, but again not without many aberrations; for man began now to criticize his social traditions and to experiment with his ideas. Cultural progress still proved to be a process of crude experiment, of trial and error, even as it had been from primitive times; but there began now to be more chance of eliminating erroneous beliefs and traditions because these could now be compared and in some cases tests could be devised as to their truth or error. Again, we are at the point where universal education may possibly give another upward leap to the curve of culture; but, if we can judge from the experience of the past, even universal education cannot be counted upon to eliminate erroneous adjustments. The accumulation of critically established knowledge, however, promises, if the diffusion of enlightenment can continue, to diffuse more generally a knowledge of and a trust in scientific methods, which promise to reduce to a minimum the wrong adjustments in all phases of culture.

Complexity of Culture

We see, as we look backward, the complexity of the process of cultural advance. *Culture is not a single process, but a complex of processes.* We have the advance of culture in tool making, in clothing, in houses, in the fine arts, in family life, in property, in government, in law, in religion, in morality, in education, and finally in scientific knowledge itself. All of these cultural traditions, and many more, are relatively separate and distinct. While one tradition is advancing, another may be lagging or actually declining. There seems, on a short view, to be no general advance of culture as a whole. Even if we divide all culture into material and non-material, or spiritual, phases of culture, still there is no even advance. While material culture is advancing, non-material culture is frequently lagging, and vice versa. But if we take a long view and draw a line which shows the general direction of all these curves, we see that there has been a general advance in human culture from the most primitive times, which has been fairly steady in spite of interruptions, retardations, and even reversions. The general rise of human culture for European peoples would picture itself schematically, then, something like the diagram on the following page.

Cultural Aberrations and War

It will be noticed that this graph seems to show aberrations in the family, in government, in religion, in morals, and in other phases of culture after the starting of organized war-

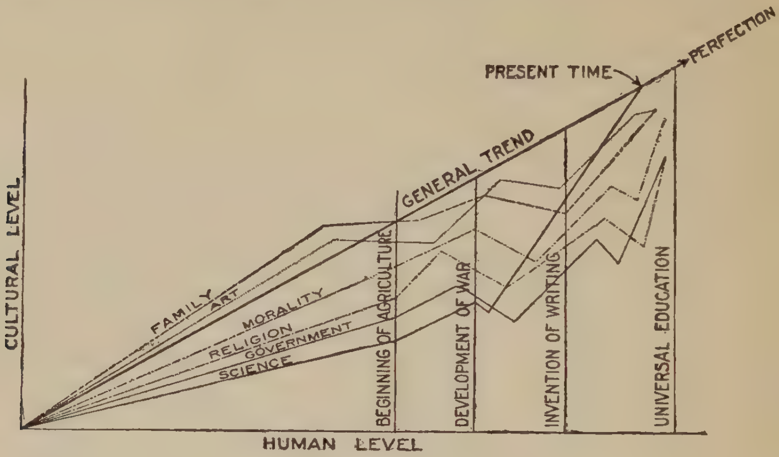

FIGURE 16

The Trend of Cultural Traditions

fare. We have already discussed this matter in previous chapters, but it may still be asked whether war is "the devil in the cultural process." The reply is that the retrogressions caused by war were temporary and relative. In one sense they were but steps, after all, toward the achievement of a still higher culture. The world, however, has not yet recovered from slavery, polygamy, and autocracy, to take only three of the questionable cultural outgrowths of war, and we cannot say what the ultimate outcome for humanity will be. If humanity is unable to throw off these erroneous social adjustments, it will probably be unable to develop any higher culture than is at present achieved. If humanity, however, shows the same power of dealing with war that it has shown in dealing with most of its other erroneous adjustments, that is, of learning how to profit by its mistakes, then the organized warfare of the last five thousand years will prove but a stepping-stone to a higher, peaceful culture. War is, of course, not the only cause of retrogression in culture. We have already insisted that there are many other causes. But war is an indication of a failure on the part of men to coöperate. Culture is necessarily a product of coöperation, as has been insisted by every student of culture, from Ratzel to the present. The struggle of man for food, against the adverse forces of nature, against disease, against crime, will probably tax the resources of human coöperation in the future to the utmost. Therefore man must learn to transcend war if he is to continue to advance in culture. If enlightenment can be spread through universal education, war, like slavery, should prove to be but a transitional process between the lower and more primitive phases of culture and the higher phases yet to be realized. Moreover, if we can unlearn the war process and devote ourselves to the productive and constructive phases of culture, it would seem probable that all of the unsocial and irrational ideas and ideals which have been associated with war and its typical cultural products would in time disappear. This is of course a mere hypothesis, but it is at least reasonable and based upon a study of the visible trend of culture.

No Definite Life Cycle of Cultures

This hopeful hypothesis has, of course, opposing it the hypothesis that cultures or civilizations are like plants or other organisms; namely that they have a definite life cycle of growth and decay.[1] We have already briefly noted this hypothesis, as it obviously stands in opposition to the whole theory of culture which we have presented. According to this hypothesis, a culture is essentially an organic growth, and like all organic growths it has its birth, its period of development, and finally its death. It is said that the earth has been the scene of a succession of cultures, and that it will continue to be so. This is a very old idea and goes back even beyond Greek philosophy to the mythology of the Greeks and many other peoples. The theory has lately been revived and popularized by a number of pessimistic books which have appeared mainly since the World War. These books have attempted to give this theory a scientific foundation and a modern dress. Chief among such works is Oswald Spengler's *Decline of the West*. On account of its erudition and style, the book has received wide acceptance, not only popularly, but also in some portions of the scientific world. The main thesis of the book is that Western civilization shows signs of exhaustion and that we are about to enter upon one of those long swing-backs in culture, which, it must be admitted, have been only too common in human history.

---

[1] For the sociological argument against this hypothesis, see Professor R. M. MacIver's *Community: A Sociological Study,* Bk. III, Chap. II.

So far as Spengler's book is prophecy, of course, it cannot be refuted. It may be that the world is upon the threshold of a decline in its leading civilization, that of Europe and America. This is, indeed, highly probable if the system of settling disputes and misunderstandings between nations, classes, and races by war is persisted in. If, as Spengler predicts, class war is about to sweep over Western civilization and the energies of Western nations are to be devoted to the non-productive uses of conflict, then indeed decline is inevitable.

But if the cultural process is of the nature that we have pointed out, there is no inevitability of decline. Human cultures are maintained by a learning process, and in their higher phases this learning process is subject to control by conscious purpose. Whether it is kept up or not depends solely upon the energy and the wisdom which are devoted to this end. Practically, only two things can interrupt the accumulation and transmission of culture in human society. These are first, war, both civil and international; and second, luxury, by which we mean the devotion of energy to non-productive self-indulgence. The instability of civilizations is due to the fact that they can go down either through conflict or through the corruptions of peace. The disintegrating forces in human society may work in peace time as well as in war time. A culture finds safety only through the maintenance of peace and at the same time a morale which will prevent corruption in time of peace. This is obviously the reason why human societies and their cultures have been so dependent upon the religions associated with them. They have been dependent, however, not only upon the morale of their masses, but also upon the social intelligence of their leaders. It is the combined failure of the morale of the masses and of the intelligence of leaders which ultimately brings a nation or a culture to disaster.[2]

The inevitability of the decline of culture is also contended for by those population theorists who hold that the mere increase of numbers is bound to bring about on this planet a series of internecine wars which can only end in cultural reversion;[3] or that peace and altruism reverse the process of selection in human society and must inevitably result in the survival of the unfit and mediocre until social degeneration sets in. There is no evidence that peace and altruism produce any such effect, though the evils accidentally associated with them may do so; and this we have emphasized as one of the real dangers which confronts our culture. A moral peace and an intelligent social altruism will undoubtedly find ways of dealing with the problem of increasing numbers. The real problem here again is spiritual rather than biological; it is a problem of social morale and social intelligence, not of some uncontrollable biological tendencies.

---

[2] The rhythms in cultural development, of course, cannot be denied. They have been emphasized in our discussion, but a very different explanation of them has been offered than that given by Spengler. Spengler insists that cultures have a relatively definite life cycle. We, on the other hand, have pointed out that cultural evolution proceeds by a process of trial and error, that the declines in culture are due to errors which are, at least in theory, preventable.

[3] Probably the best scientific refutation of the extreme population theorists is to be found in Professor A. M. Carr-Saunders' book, *The Population Problem.* This exhaustive study of the population problem, while not denying that over-population has existed in some countries under certain conditions, shows that the tendency of population among all peoples is to fluctuate around an "optimum number." The vital thing in Professor Carr-Saunders' study, however, is that he marshals conclusive evidence to show that population among all peoples has been controlled by their social traditions. The growth of population, in other words, is not a purely biological phenomenon. Like all other phases of collective behavior it is virtually controlled by culture.

The Problem of Culture Is Spiritual

Disaster may confront Western civilization, not only because the morale of its masses has been undermined by luxury and by war, but also because there may be a lack of adequate intelligent leadership in the complex situation which now confronts the modern world. All this may be admitted, but this is very different from saying that human cultures have, inevitably, their periods of growth and decay. As culture, by its very nature, is an accumulation of knowledge, skills, standards, and values, there would seem to be no reason in the nature of the process of culture itself why culture should have periods of decadence. If the learning process in human society can go on uninterruptedly, there should be no swing-backs in culture. We should have only those plateaus which we find also in the learning of the individual. There is no analogy between the growth of a culture or of culture generally and the growth of a plant or biological organism. There is real analogy, or rather identity, between the learning process in an individual and in a social group. The process is simply more complex in the latter case because of the great number of individuals involved. In both cases, it is essentially a modification and accumulation of habit complexes. But just as there are chances for the individual to start wrong habits which interfere with the further normal development of the learning process, so there are many more chances of a human group's starting habits or institutions which will interfere with the normal development of its culture, or even bring about a reversion in culture. There are many such habits and institutions. Most of them seem merely to produce a static condition in culture; but others, like war and luxury, so interrupt the learning process that they produce actual reversions in culture.

The fact that cultures start anew after such a reversion is due to the fact that man is inevitably a learner, and that he learns even from his mistakes and calamities. The freeing of the process of learning in the group gives rise, accordingly, to a new start or a new lead in culture. Then the process of accumulation begins all over again until it again is interrupted by foolish self-indulgence on the part of the masses or by the disturbances which result from prolonged war, international or civil.

The Decline of Cultures Due to Mistakes

The scientific mind can discover no inevitability about this process, unless indeed we assume that, because culture develops by a process of trial and error, fatal mistakes must appear in culture according to the laws of chance from time to time. But if this were so, there would be no fixed cycle in culture, no definite period of growth and decay. The mistakes and blunders on the part of masses and leaders which lead to reversions in culture would seem rather to be not inevitable. As a matter of fact, they seem to characterize mainly Western civilization. The development of the scientific method and scientific attitude within Western civilization, we may reasonably hope, will tend to prevent, if not entirely to eliminate, the mistakes and blunders in social policy which lead to cultural disaster.

Whether we believe that the scientific method and the diffusion of the scientific attitude can thus safeguard our civilization or not, it is at least important to see that there is no inevitable law of decline or decadence in the cultural process, but that, on the contrary, all cultural decadence is due to the interruption of the collective learning process. This, in turn, may be traced to the blunders, mistakes, and errors in judgment of leaders and of the masses. The development of science, especially of social science, should work to prevent this, especially if the coöperation of the masses of mankind with scientific leaders can be secured. Reversions in culture are, it would seem, no more inevitable than famine, pestilence, or war. All these, to be sure, have hitherto characterized the history of mankind; but science believes that they can all be eliminated and prevented.

The Work of Social Science

What sort of social and cultural evolution can we look forward to under the guidance of science? To answer this, let us recall again that the evolution which man is undergoing is not primarily a physical nor even a mental evolution; *it is primarily a cultural evolution.* If man is to evolve further, even physically, it is because there is a possibility of cultural and social advance which may make possible, some day, a eugenics program of the rational sort and the universalization of public sanitation and physical education. Man's mental evolution manifestly depends upon the advance in culture. Man does not increase his intellectual capacities, but he accumulates, rationalizes, and diffuses his knowledge. General enlightenment is not due to individual advance, but to cultural advance. This is why there is so much hope for backward peoples. The whole evolution of man from the beginning of his existence upon this planet to the end is necessarily an evolution which is dominantly cultural and which will be increasingly dominated by culture.

If now we look ahead rather than backward, we shall be able to project the trend of human evolution. With this spread of enlightenment through universal education, there will be more and more acceptance of the scientific spirit and method in all phases of culture. Even in its non-material phases, the aberrations and crude experiments of the past will tend to straighten out. Gradually the advance of culture will become more smooth and even; but completer adjustment will also be attained and the upward trend of culture in all of its phases will be less noticeable. Civilization will no longer be a crude process of trial and error, and no longer illy balanced, but will

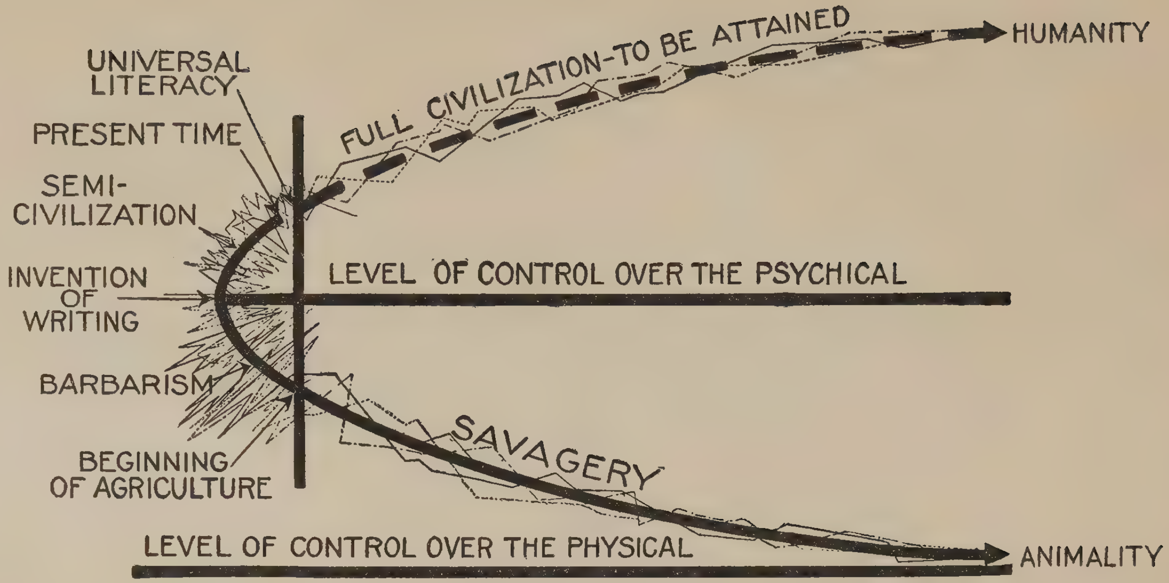

Figure 17

The Stream of Civilization. (The finer lines symbolize the various cultural traditions.)

Civilization, 4, 9, 22, 23, 28, 39, 41, 79, 251-262
Civilized peoples, 23, 28-30, 40
Clothing, development of, 25, 26-30, 145-149, 153, 156
Collectional stage, 24, 25
Communication, 4-6, 9, 10, 13, 46, 69-73, 74, 76, 77
Communism, 183, 189, 190
Concept making, 5, 6, 12, 13, 45, 69, 70-73
Control, culture a means of, 19, 21, 24, 44-46, 88, 104, 110, 122, 124, 166, 206, 226
Copper Age, 33, 34, 35, 102
Crisis and invention, 44-46, 47, 49, 99, 111, 122
Cultivators, 20
Cultural determinism, 65
Culture, 3-16, 18-80; see cultural evolution definition, 4, 5, 9, 14, 42; transmission of, 9, 14, 50, 75; diffusion of, 49, 53-55; lags in, 56, 57, 251
Cultured peoples, 30, 40
Custom, 4, 39, 105, 113, 114, 115, 118, 119, 206-208, 216-218; and law, 206-208; and morality, 216-218; and religion, 234, 235

D

Dahomeyans, 28
Dance, forms of, 174, 175
Democracy, 30, 208, 212-214
Dewey, John, 88, 89, 90
Diffusion of culture, 53-55
Domestication, 20, 22, 26, 27, 115, 122-130, 187
Durkheim, É., 230, 236
Dyaks, 27

E

Economic factors, 20, 24, 26-31, 88-90, 117, 118, 121-131, 135, 138, 181, 183-191, 194, 257
Education and culture, 49, 75, 117, 143, 237-243; development of, 49, 237-243
Educative process, 6, 13, 45
Elliot-Smith, G., 63
Environment, influence of, 14, 15, 59-61, 87, 102, 123, 129, 162
Eolithic stage, 32, 99
Error, trial and, 16, 42, 49, 117, 169, 172; in cultural evolution, 16, 49, 113-120, 142, 143, 172, 259
Eskimos, 26, 79, 160
European peoples, 30, 31, 39, 40
Evolution, 3, 11, 14, 15, 18, 51, 70; cultural, 3-16, 18-80, 87-96, 106, 119, 143; causes of cultural, 59-80; organic, 7, 8, 11, 14, 18, 70, 74, 75; social, 3, 7-11, 14-16, 18-58, 59-78, 87-96, 251-262
Experiment in cultural evolution, 50, 103, 111, 172

F

Family, the, 11, 88, 91, 184, 192-205; development of, 192-205
Fantees, 28
Fijians, 28
Food process, 109-120
Food supply, 20, 24, 25-29, 109, 110, 121, 131
Frazer, J. G., 236, 262
Fuegians, 26, 72
Functional view of culture, 44-46

G

Gallas, 28
Geographic factors, 59-61, 102
Goldenweiser, A. A., 10, 17, 20, 43, 58, 60, 97, 181, 236
Government, development of, 29-31, 140, 206-214
Gras, N. S. B., 24, 124
Greeks, 30, 157, 163, 202, 217, 255

H

Habit as a factor, 64-66, 70, 75
Hankins, F. H., 62, 81
Hartland, C. S., 197, 205

Haussas, 29
Hawaiians, 28, 148
Hayes, E. C., 40, 157
Hedonism, 218
Heredity, organic, 14, 61, 62, 68
Herrick, C. J., 8, 65, 69, 70
Hirn, Y., 181
Historical method, 79, 80, 82
History, 12, 22, 28, 31, 34, 78, 79, 80, 82, 128
Hobhouse, L. T., 4, 144, 191, 205, 262
Holmes, W. H., 164, 167, 181
Hottentots, 27
Housing, development of, 26-30, 158-164
Human factors, 3-9, 16, 68-70
Human society, 3, 5, 7, 10, 16; see Social evolution
Hunting pattern, 88-93, 140
Hunting peoples, 20, 22, 24, 25, 26
Hunting tools, 90, 101, 135

I

Imagination, 5, 45, 49, 69
Imitation, 5, 63, 64, 67
Individual as a factor, 10, 45-49, 77
Instincts as a factor, 67, 68, 70, 87, 111, 134
Institutions, 4, 114, 117-120, 141, 142, 183, 192
Intelligence as a factor, 6, 13, 47, 69, 71, 73, 76, 242-249, 260
Intercommunication, see Communication
Intuitionism, 220
Invention, 5, 6, 13, 44-46, 48, 104
Iron, 28, 29, 103; Age, 33
Iroquoian Indians, 27, 136, 161

J

Japanese, 30, 31, 163, 211
Jenks, C., 191, 214
Judd, C. H., 4, 13, 17, 58, 68, 97, 182, 191, 214, 249

K

Keller, A. G., 3, 43, 144, 157
Kirghiz peoples, 28
Kroeber, A. L., 3, 8, 43, 58, 81, 132

L

Lags in culture, 56, 57, 105, 251
Language, verbal, 3, 4, 5, 10, 12-14, 36, 46, 69-73
Law, development of, 29, 30, 206-208
Leadership, 47, 258
Learning process, 4, 6, 14, 15, 19, 21, 45, 49, 52, 69, 70, 73, 80, 118
Lévy-Bruhl, L., 84, 97
Literacy, 20, 22, 30, 31
Literate peoples, 20, 22, 28-31
Literature, 28, 30, 177-180
Locke, John, 184
Lowie, R. H., 60, 61, 65, 81, 183, 191, 205, 236
Luxury, 29, 256

M

MacCurdy, G. G., 33, 43
Machines, 6, 98, 104
MacIver, R. R., 255
Magdalenian epoch, 101
Malagasy, 28
Malinowski, B., 18, 46, 58, 95, 115, 116, 183
Manaism, 228
Manchus, 29
Mandingans, 29
Marett, R. R., 197, 205, 214, 234, 236
Margold, C. W., 205
Marriage, 193-195
Mayas, 137
McCormack, T. J., 12, 13
Melanesians, 27
Metal ages, 33, 34, 35; tools, 27, 28, 33
Metronymic family, 196
Mexican Indians, 137

Mincopies, 26
Monarchy, 209-211
Money, development of, 185, 186
Monogamy, 193-204
Monotheism, 233-235
Morality, development of, 88-94, 216-224
Morgan, L. H., 22, 23, 25
Moustierian epoch, 100, 146
Musical arts, 173-177
Mutations, 51
Mutilation, bodily, 54, 150-152

N

Natural selection, 57, 119
Nature peoples, 36, 40, 80
Negro peoples, 28
Neolithic stage, 33, 35, 78, 102, 125, 138, 147, 169
Nordics, 62

O

Occupations, primitive, 88-93
Ogburn, W. F., 17, 45, 54, 58
Osborn, H. F., 43

P

Painting, 152, 168
Paleolithic stage, 32, 35, 61, 78, 99, 124, 125, 146, 159, 169, 172
Papuans, 27
Parsons, P. A., 38
Pastoral economy, 24, 128-130
Patagonian Indians, 26
Pattern ideas, 82
Patterns, behavior, 4, 5, 9, 45, 69, 87-94; cultural, 5, 12, 45-49, 51, 82, 87-94, 94-96; mental, 5, 12, 13, 45, 69, 82, 88
Perry, W. J., 133, 135, 144
Play and art, 166, 172
Polygamy, 38, 197-199
Polynesians, 27, 28, 148, 202
Polytheism, 232
Population, 37, 131, 202, 257
Pottery making, 27, 28
Pre-literate peoples, 20, 21, 22, 25-28, 126
Primary group life, 88, 201
Primitive mind, 82-92
Private property, 183-191
Progress, cultural, 18, 19, 48, 49, 237-249, 252-262
Property, development of, 183-191
Psychological factors, 19, 44, 45, 47, 63-80, 118
Psychology and culture, 14, 15, 19, 45, 69-80, 82
Psycho-social theory of culture, 69-80
Pueblo Indians, 136, 147, 161

Q

Quechua Indians, 137, 138

R

Race and culture, 61, 62, 68
Ratzel, F., 132, 146, 157, 214, 255
Religion, development of, 29, 30, 50, 225-236, 244
Rivers, W. H. R., 205
Romans, 30, 143, 202
Ross, E. A., 262

S

Samoans, 28
Savage peoples, 22, 23, 25, 26, 36, 115, 134, 136, 161
Savagery, 22, 23, 35-37, 217
Science, definition of, 19; development of, 30, 243-249
Sculpture, 172, 173
Self-realization, 222
Semangs, 26
Siouan Indians, 26, 27, 136
Slavery, 27, 28, 38, 39, 141, 143, 187, 188
Social, the, 7
Social science, 260
Societal, 7
Society, human, 4, 5, 7, 10
Sociology, 3, 60, 78, 89, 259

Solutrean epoch, 102, 103
Spengler, Oswald, 256, 257
Steel, 33, 103, 104
Stone tools, 6, 32, 34, 51, 52, 98-102
Sumner, W. G., 17, 43, 117, 120, 144, 157, 205, 216
Survivals in culture, 56-58, 105
Sutherland, A., 25
Sympodial evolution, 51

T

Tahitians, 28
Technological classification, 24, 32
Technology, 33
Thomas, W. I., 44, 47, 71, 132, 194, 195, 239
Todd, A. J., 85, 97, 144, 262
Tool making, 4, 5, 6, 12-14, 42, 71, 76, 98-107
Totemism, 229
Tozzer, A. M., 7, 8, 16, 19, 23, 36, 58, 136, 138, 196, 205, 215, 222
Tradition, social, 49, 50, 76, 78
Trial and error, 16, 49, 50, 86, 117, 142, 259
Tungas, 28
Turkish peoples, 29
Tylor, E. B., 4, 136, 164, 182, 236

V

Values, social, 22, 38, 172, 225
Veddahs, 26

W

Waganda people, 28
Wallis, W. D., 23, 43, 132, 182, 191, 205, 215, 224
War, 26-30, 38, 39, 90, 95, 115, 118, 120, 128, 133-134, 197-199, 256; development of, 133-134
Westermarck, E., 120, 144, 191, 193, 205, 224
Wissler, C., 5, 12, 13, 17, 18, 31, 33, 34, 35, 43, 58, 67, 71, 80, 120, 133, 144, 157, 160, 182, 191
Writing, invention of, 20, 22, 24, 28, 40, 244

Y

Yakuts, 28
Yerkes, R. M., 5
Yorubas, 28

Z

Zulus, 28

OKS
250

9|-8

HM
106
E5

Ellwood, Charles Abram, 1873- 1946.
... Cultural evolution; a study of social origins and development, by Charles A. Ellwood ... New York, London, The Century co. [©1927]

viii p., 3 l., 3-267 p. diagrs. 23cm. (The Century social science series) $2.50

"Suggested readings" at end of each chapter.

1. Sociology. 2. Civilization. 3. Culture. I. Title.

27-24089

Library of Congress HM106.E5 CCSC/mm